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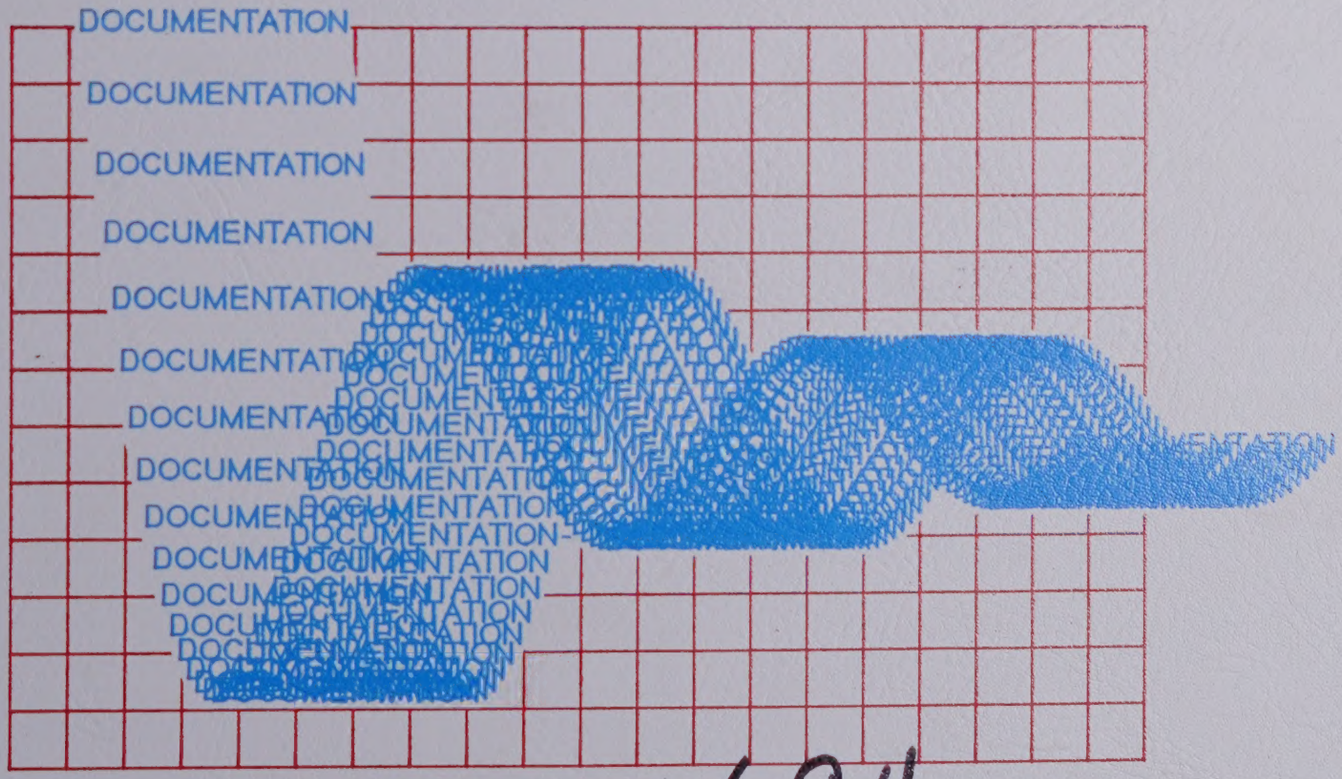

MP MASTER
MA20559

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Test and Measurement
Division

Service Manual – Module Level

Universal Radio Communication Tester

CMU200

1100.0008.02

Volume 2
Service Manual consists of 2 volumes

Printed in the Federal
Republic of Germany

Tabbed Divider Overview

Spare Parts Express Service
List of R&S Representatives
Safety Instructions

Tabbed divider

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VOLUME II

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Measurements
Division

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DIGITAL BOARD and SANDWICH MODULES

1100.1791

Printed in the Federal
Republic of Germany

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4 DIGITAL BOARD and SANDWICH MODULE

The DIGITAL BOARD is the central communication and distribution board of the instrument. The DIGITAL BOARD also accommodates the SANDWICH MODULE: ADC MODULE, DDC MODULE, TXDSP MODULE and AUC MODULE.

Function Description of the DIGITAL BOARD

The DIGITAL BOARD contains the following function groups:

- ISA-bus address decoder, driver for data and address bus
- ISA-bus-controlled serial interfaces
- ISA-bus interrupt controller
- CLOCK divider and distributor
- Distribution of the device-internal serial interface
- Distribution of internal and external trigger signals
- Multiplexers of modulation and demodulation signals
- Poll of options
- Diagnosis
- Speed control of instrument fan
- LED for indication of status and activity

The block diagram of the DIGITAL BOARD and the SANDWICH MODULEs is to be found on the circuit diagram (1100.1804.01 S, sheet1).

A lot of the functions mentioned above are summed up in the FPGA D62 (ATDSP) and D61 (LINK).

ISA Bus Address Decoder, Driver for Data and Address Bus

Address decoding of the board is effected by means of a permanently wired decoder for the early boot phase and a programmable decoder in the FPGA ATDSP.

This programmable decoder is responsible both for the control of the registers on the DIGITAL BOARD and for the SELECT signals of the modules UNIVERSAL SIGNALING UNIT, REFERENCE BOARD and AUDIO BOARD.

The signals of the ISA data bus are driven separately for the distribution within the module and for the AUDIO BOARD and REFERENCE BOARD.

ISA-bus-controlled Serial Interfaces

The following serial interfaces are implemented in the FPGA ATDSP:

- I^2C bus for EEPROMs on the SANDWICH MODULES and control of the FRONTEND
- I^2C bus to the modules IQ-MODDEMOD/LOW FREQ BOARD, Reserved and AUX connector at the rear panel of the instrument
- Serial control and programming of the FPGA D108 (SW_DEMOD) and D140 (SW_MOD)
- Two serial interfaces for the A/D converter diagnosis on the DIGITAL BOARD, diagnosis as well as power measurement on the FRONTEND
- A/D converter for adjusting the modulators on the AUC MODULE

ISA Bus Interrupt Controller

The interrupts generated by the measuring hardware on the DIGITAL BOARD and other modules, which are not typical for PCs, are conditioned in the FPGA ATDSP and LINK, masked, combined and passed on to ISA-bus interrupts.

CLOCK Divider and Distributor

The REFERENCE BOARD provides two variable clocks NETCLK1 and NETCLK2, which are dependent on the application, as well as a clock of fixed frequency 110.8M3.
The clocks are frequency-divided by means of several fixed and programmable dividers and taken via multiplexers to the following destinations:

- UNIVERSAL SIGNALING UNIT
- REFOUT2 connector on rear panel of instrument
- ABIS (PROGNETCLK) and AUDIO BOARD (AUDIONETCLK)
- Reference clock 27.7 MHz for the DSP on the DDC MODULE and the TXDSP MODULE
- Sampling clock for the receive IF on the ADC MODULE and for further processing on the DDC MODULE
- Sampling clock for the TXDSP MODULE
- Synchronizing clocks for all DSPs on the DDC MODULES and TXDSP MODULES

The reference frequency 110.8M3 that is divided down to 13.85 MHz is used as IF carrier in the AUC MODULE, the operating voltage control ensures a constant IF level

The clocks supplied by the REFERENCE BOARD as well as a rough frequency measurement are enabled by frequency voltage converters and the diagnosis A/D converter.

Distribution of the Device-internal Interface

The communication between the maximally two UNIVERSAL SIGNALING UNITs, the maximally four DSPs on the SANDWICH MODULES of the DIGITAL BOARD, the AUDIO BOARD and the RXTX BOARDs is handled on a bidirectional serial interface. Here, information on the instrument setting is passed on, such as e.g. frequency and level values.

For time-critical settings, additional trigger signals are used. All the lines of the interface are combined in the FPGA LINK, which passes on any information to the addressed destination.

A second serial interface can be installed between the DSP on the SANDWICH MODULEs of the DIGITAL BOARD and the AUDIO BOARD. The lines of this interface are routed to the FPGA ATDSP.

Distribution of Internal and External Trigger Signals

All trigger signals like level and signaling trigger generated on the modules as well as the instrument-internal inputs or outputs EXTTBUS are processed and distributed in the FPGA LINK.
The automatic protective devices for the external interface are accommodated on MOTHERBOARD1, they are used to protect the FPGA against overload.

Multiplexers of Modulation and Demodulation Signals

Modulation

Analog modulation signals of the UNIVERSAL SIGNALING UNIT and the TXDSP MODULE are selected via multiplexers and routed to the AUC MODULE. It is also possible to tap the signals of the IQ-MODDEMOD/LOW FREQ BOARD.
The modulation signals are filtered on the AUC MODULE, selection of the filter as well as setting of the normal and inverted position is effected on the DIGITAL BOARD by multiplexers.

This signal is then taken to the modulator on the AUC MODULE.

Demodulation

The digital demodulation data provided by the DDC MODULE is selected in the FPGA SW_DEMOD and passed on to the UNIVERSAL SIGNALING UNIT.

Poll of Options

In addition to registers for polling the DIGITAL BOARD and the SANDWICH MODULES, an EEPROM with management data is also available.

Diagnosis

The DC voltage of the internal diagnosis line is evaluated by the A/D converter diagnosis. In addition, various board-internal diagnosis voltages are to be polled via a multiplexer:

- One test voltage each, generated by frequency/voltage converters from NETCLK1, NETCLK2 and 110.8M3
- A temperature sensor
- A sum voltage of the stabilized operating voltages generated on the DIGITAL BOARD

Speed Control of the Instrument Fan

The instrument fan is controlled in the FPGA ATDSP. The data is provided by the controller, which polls the temperature sensors of various boards.

LED for Indication of Status and Activity

Six LEDs are visible at the upper edge of the DIGITAL BOARD outside the screening panel, which enable fast judgement of the following functional units. Viewed from the outside to the inside, these are

FPGA ATDSP (yellow)

Basic pattern:	Two pulses following each other at short intervals and being repeated after approx. 2 seconds. The first pulse indicates whether the FPGA is loaded, the second indicates that the reference clock 110.8M3 is provided. Additional pulses are activated when the controller accesses to registers inside the FPGA, e.g. during measurements.

FPGA LINK (yellow)

Basic pattern:	A pulse that is repeated every approx. 2 seconds. Additional pulses are activated when the controller accesses to registers inside the FPG, e.g. during measurements,
DDC MODULE 1 (red):	The LED is controlled by the DSP on DDC MODULE 1. See there.
DDC MODULE 2 (red):	Same as DDC MODULE 1.
TXDSP MODULE 1 (green):	The LED is controlled by the DSP on TXDSP MODULE 1. See there.
TXDSP MODULE 2 (green):	Same as TXDSP MODULE 1.

Function Description of the ADC MODULE

The ADC MODULE converts the analog IF into a digital signal.

A dither signal that is filtered by a lowpass and attenuated is added to the IF signal and then applied to the A/D converter. The balun balances the sampled signal.

An EEPROM stores the adjustment and management data of the module.

Function Description of the DDC MODULE

The DDC MODULE converts the IF data to the baseband, filters and decimates the data. A DSP (RXDSP) evaluates the baseband data for measuring purposes.

For converting the IF to baseband data, the ASIC Digital Down Converter is used. The IQ baseband data are passed on to the UNIVERSAL SIGNALING UNIT and two FIFO memories. The DSP located on the module configures the Digital Down Converter and evaluates the baseband data. The measurement results are taken via a further FIFO memory to the FRONT MODULE computer.

The LED on the DIGITAL BOARD is activated during analysis of the measurement.

Function Description of the TXDSP MODULE

The TXDSP MODULE is used for generation of modulation signals. Both network-independent spurious or stimuli and network-specific ones without signaling-specific contents can be generated.

The DSP calculates the two modulation signals I and Q and writes them into two FIFO memories. The network or application-specific readout pulse of the FIFO memories is provided by the DIGITAL BOARD. The data that have been read out are converted into analog signals by means of D/A converters.
Further memories are available to the DSP as program and data memories.

The DSP is able to drive an LED on the DIGITAL BOARD. The pulse sequence depends on the application.

An EEPROM stores the management and adjustment data of the module.

Function Description of the AUC MODULE

The AUC MODULE filters and modulates the analog IQ signals onto a carrier. The AUC MODULE accommodates two identical filter pairs and an IQ modulator.

The multiplexers for selection of the filters and setting the normal and inverted position are located on the DIGITAL BOARD.
The selected signals are modulated onto the carrier in the modulator. The carrier results from a 13.85-MHz squarewave signal fed in by the DIGITAL BOARD and used to generate two sinewave signals with a phase offset of 90°. Angle, amplitude and offset of the modulator are adjusted by variable DC voltages generated on the DIGITAL BOARD.

The adjustment and management data of the module are stored in an EEPROM.

Opening the DIGITAL BOARD, Removing or Adding SANDWICH MODULES

Caution!

Make sure to follow the instructions of the following sections in order not to cause damage to the instrument or endanger people. Please also observe the general safety instructions at the beginning of this manual.

(see also diagram 1100.1791.01 sheet 1)

Note: *For opening the instrument and replacing the DIGITAL BOARD please refer to the Service Manual of the Instrument, Chapter 3. Module Replacement, Replacing the DIGITAL BOARD).*

To open the DIGITAL BOARD and remove or add SANDWICH MODULES proceed as follows:

- Loosen the screws of the upper cover and remove.
- To remove the ADC MODULE loosen its fixing screws.
- The SANDWICH MODULES can now be removed using the appropriate tool.

Note: *When inserting SANDWICH MODULES make sure not to twist or offset the MODULES (see drawing).*

Caution!

The MODULES are not mechanically protected against wrong installation!

In the case of the TXDSP and DDC MODULES, the recess of the board edges must point to the MOTHERBOARD plugs of the DIGITAL BOARD. The MMCX socket of the ADC MODULE must protrude from the screening panel. The narrow milled opening of the AUC MODULE must point to the MMCX sockets of the DIGITAL BOARD.

- When inserting the sandwich modules try to exert a uniform pressure on the module areas below which the male connectors to the DIGITAL BOARD are located.

  Take care not to bend connector pins.
- The heat conducting mats are to be stuck to the module components according to the mounting instructions (see drawing).
- Tighten the screws of the upper cover again.

Opening and Adapting the DIGITAL BOARD for Troubleshooting

Troubleshooting on the DIGITAL BOARD is facilitated by the use of the motherboard adapters of Service Kit CMU-Z10 (1100.7690.02). For this purpose, take the module out of the instrument and remove the HVC covers (see also *Service Manual Instrument, Chapter 3, Module Replacement, Replacing the DIGITAL BOARD*). Plug four adapters with 96-contact future-bus connectors and an adapter with 48-contact future-bus connectors into the MOTHERBOARD1 connector of the DIGITAL BOARD; then carefully insert the digital board onto the adapters.

Note: *Due to the use of motherboard adapters, the load conditions and interference due to crosstalk on the lines are changed. This may lead to sporadic faulty functions of the instrument or the module to be tested during troubleshooting. In some cases, a remedy may be to remove the CMU-B21 UNIVERSAL SIGNALING UNIT.*

The required MMCX cables to the DIGITAL BOARD are replaced by the MMCX cables of the Service Kit, the number of required cables depends on the options provided for the instrument.

The measurements on the DIGITAL BOARD and the SANDWICH MODULES are impeded by the SANDWICH MODULES mounted. SANDWICH MODULES may be removed for troubleshooting as a trial. Whether the software will then still function properly must be decided depending on the error messages displayed.

Caution!

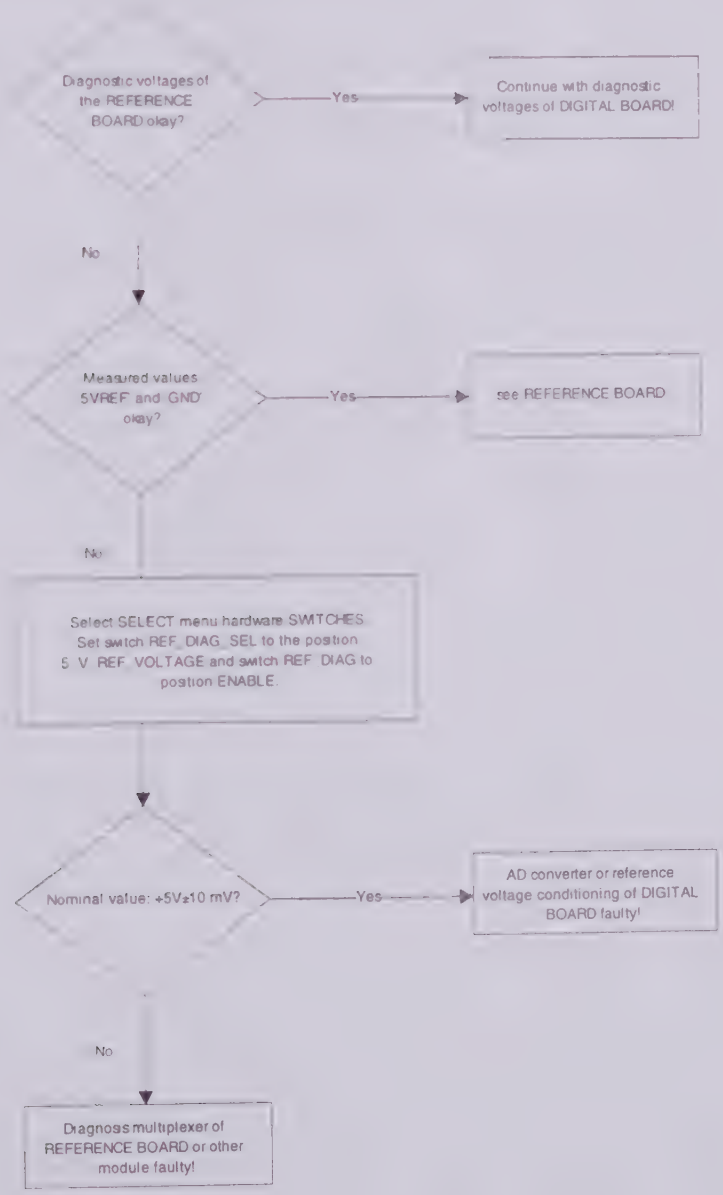
The SANDWICH MODULES are not mechanically protected against wrong installation!
In the case of the TXDSP and DDC MODULES, the recess of the board edges must point to the MOTHERBOARD plugs of the DIGITAL BOARD. The MMCX socket of the ADC MODULE must protrude from the screening panel. The narrow milled opening of the AUC MODULE must point to the MMCX sockets of the DIGITAL BOARD.

Troubleshooting

The firmware of the instrument provides selftest routines, which test individual modules or functional units on request.
The selftest performed on user request can be selected via the *MENU SELECT* key, Function Group *BASE*, Maintenance, *SELECT*.

Testing the Diagnosis AD Converter and the Reference

Selftest in the SELECT menu BOARD TEST REF



Faulty Diagnostic Voltages of DIGITAL BOARD and Possible Causes

Selftest in the SELECT menu BOARD TEST DIG

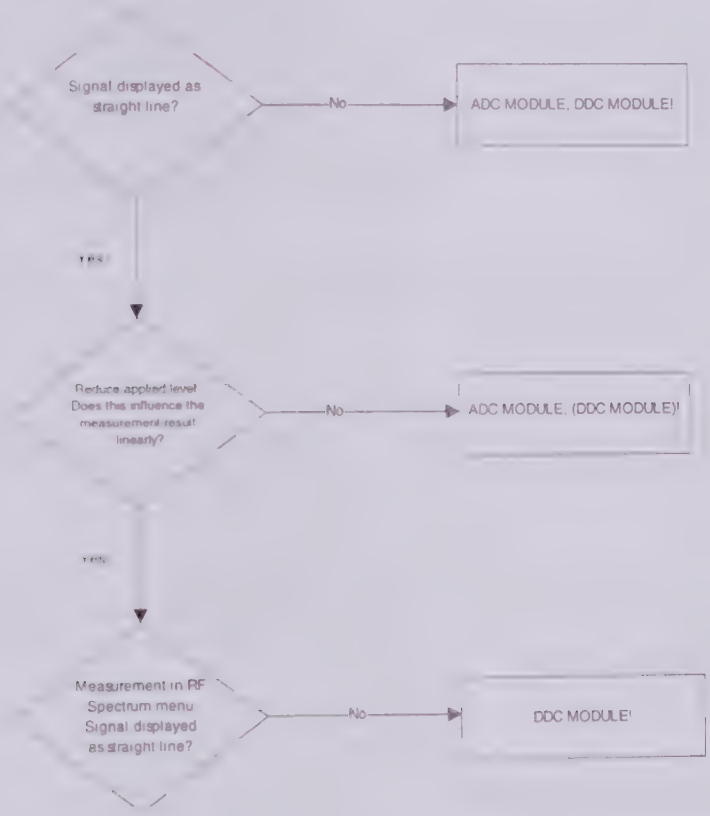
NETCLK1/2:	➢ Check frequency and level of NETCLK 1/2 of REFERENCE BOARD. ➢ Check MMCX cable between REFERENCE BOARD and DIGITAL BOARD. ➢ Check receiving circuit of NETCLK on DIGITAL BOARD.
110.8M3	➢ Check frequency and level 110.8M3 REFERECE BOARD. ➢ Check MMCX cable between REFERENCE BOARD and DIGITAL BOARD. ➢ Check receiving circuit of 110.8M3 on DIGITAL BOARD.
Temperature	Thermometer U1 faulty.
REGVOLT	Stabilized operating voltages faulty.

Voltage	Nominal value
V29 Pin1 (+5VADC1)	+5 V ±20 mV
V28 Pin1 (+5VADC2)	+5 V ±20 mV
V31 Pin1 (–5VADC1)	-5 V ±20 mV
V30 Pin1 (–5VADC2)	-5 V ±20 mV
D87 Pin16	+3.3 V ±20 mV
–5VREF	-5 V ±20 mV

Received-signal Characteristics

No or faulty evaluation of received signal

- Feed in 10.7 MHz 0 dBm at RX1IF3 or RX2IF3.
- Measurement in the RF menu, Non Signaling, Analyzer/Generator, Power vs. Time, Settings: RBW 1MHz, Trigger Free Run



Note: *In the case of a dual-channel device make sure that the instrument software can freely select the used path. The menu Group Config. RF Path permits the used path to be determined by the user. This only applies to the signals evaluated in the Analyzer/Generator menu.*

Faulty Diagnostic Voltages of DIGITAL BOARD and Possible Causes

Selftest in the SELECT menu BOARD TEST DIG

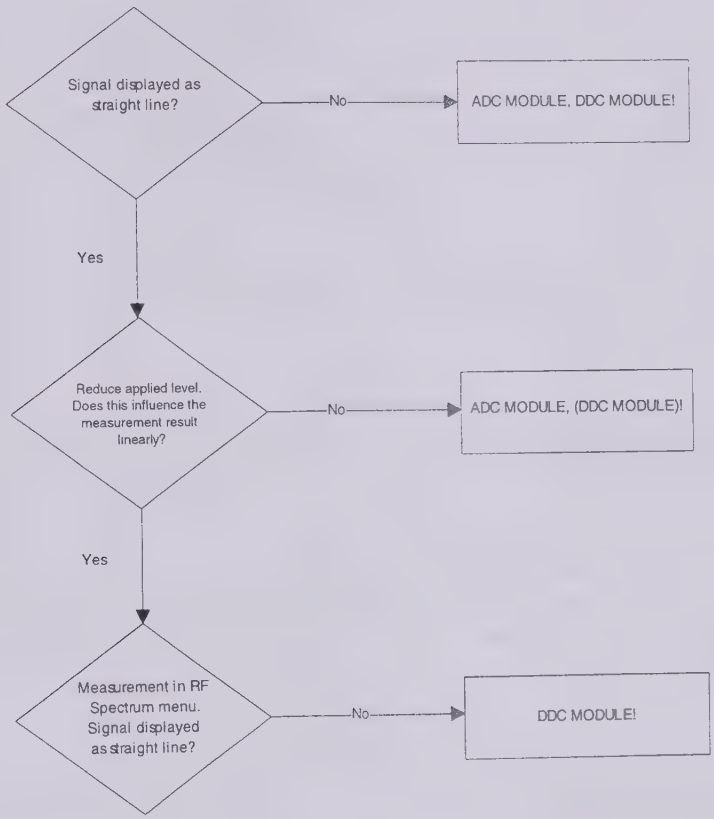
NETCLK1/2:	➢ Check frequency and level of NETCLK 1/2 of REFERENCE BOARD. ➢ Check MMCX cable between REFERENCE BOARD and DIGITAL BOARD. ➢ Check receiving circuit of NETCLK on DIGITAL BOARD.
110.8M3	➢ Check frequency and level 110.8M3 REFERECE BOARD. ➢ Check MMCX cable between REFERENCE BOARD and DIGITAL BOARD. ➢ Check receiving circuit of 110.8M3 on DIGITAL BOARD.
Temperature	Thermometer U1 faulty.
REGVOLT	Stabilized operating voltages faulty.

Voltage	Nominal value
V29 Pin1 (+5VADC1)	+5 V ±20 mV
V28 Pin1 (+5VADC2)	+5 V ±20 mV
V31 Pin1 (–5VADC1)	-5 V ±20 mV
V30 Pin1 (–5VADC2)	-5 V ±20 mV
D87 Pin16	+3.3 V ±20 mV
–5VREF	-5 V ±20 mV

Received-signal Characteristics

No or faulty evaluation of received signal

- Feed in 10.7 MHz 0 dBm at RX1IF3 or RX2IF3.
- Measurement in the RF menu, Non Signaling, Analyzer/Generator, Power vs. Time, Settings: RBW 1MHz, Trigger Free Run



Note: *In the case of a dual-channel device make sure that the instrument software can freely select the used path. The menu Group Config, RF Path permits the used path to be determined by the user. This only applies to the signals evaluated in the Analyzer/Generator menu.*

Transmitter Characteristics

No level at TX1IF3 or TX2IF3	Check clock AUCCLK1 and AUCCLK2
No offset modulation in the Analyzer/Generator menu	Check modulation I and Q: **Channel 1**: No signal at N152 Pin6 or N156 Pin6: TXDSP MODULE 1 **Channel 2**: No signal at N153 Pin6 or N157 Pin6: TXDSP MODULE 2 **Channel 1**: No signal at D162 Pin8 or D163 Pin8: AUC MODULE 1 **Channel 2**: No signal at D171 Pin8 or D172 Pin8: AUC MODULE 2
No modulation in the Analyzer/Generator menu, but network-specific signaling provided	TXDSP MODULE, multiplexer D152, D156, D154 and D158
No network-specific signaling, but modulation provided in the Analyzer/Generator menu	UNIVERSAL SIGN. UNIT, multiplexer D152, D156, D154 and D158

Note: *In the case of a dual-channel device make sure that the instrument software can freely select the used path. The menu Group Config, RF Path permits the used path to be determined by the user. This only applies to the signals generated in the Analyzer/Generator menu.*

Testing and Adjustment

The DIGITAL BOARD contains no devices of adjustment.

External Interfaces

MMCX Sockets

110.8M3	in N	ana-log	110.8 MHz ±1 MHz, -12 dBm...+13 dBm; input impedance ca. 50 Ω	X703	Fixed Ref Frequency
NETCLK1	in N	digi-tal	21 MHz..84 MHz, TTL, input impedance ca. 10 kΩ||10 pF	X702	Net dependent clock
NETCLK2	in N	digi-tal	21 MHz...84 MHz, TTL, input impedance ca. 10kΩ||10pF	X701	Net dependent clock
REFOUT2	out	digi-tal	100 kHz...42 MHz, LVT, output impedance ca. 50 Ω	X705	
AUDIO_NETCLK	out	digi-tal	NETCLK1 or NETCLK2, LVT, output impedance ca. 50 Ω	X704	
IF1TX	out	ana-log	mode IF: 13.85 MHz, nominal level and impedance: see AUC MODULE. Offset U_{DC} = 2.5 V with 100 kΩ added mode direct FM: 0 Hz...1 MHz, source voltage: U_{pp} = 4 V, 2 V offset, output impedance ca. 50 Ω	X708	IF out channel 1
IF2TX	out	ana-log	mode IF: 13.85 MHz, nominal level and impedance: see AUC MODULE. Offset U_{DC} = 2.5 V with 100 kΩ added mode direct FM: 0 Hz...1 MHz, source voltage: U_{pp} = 4 V, 2 V offset, output impedance ca. 50 Ω	X709	IF out channel 2

Motherboard

GND	in/ out	po- wer		X71A1	
EXTTBUS11	in/ out	digi- tal	LVT, in: 5 V tolerant out: imp 100 Ω, no security circuit	X71A2	AUX Socket
EXTTBUS10	in/ out	digi- tal	LVT, in: 5 V tolerant out: imp 100 Ω, no security circuit	X71A3	AUX Socket
EXTTBUS9	in/ out	digi- tal	LVT, in: 5 V tolerant out: imp 100 Ω, no security circuit	X71A4	AUX Socket
EXTTBUS8	in/ out	digi- tal	LVT, in: 5 V tolerant out: imp 100 Ω, no security circuit	X71A5	AUX Socket
EXTTBUS7	in/ out	digi- tal	LVT, in: 5 V tolerant out: imp 100 Ω, no security circuit	X71A6	AUX Socket
EXTTBUS6	in/ out	digi- tal	LVT, in: 5 V tolerant out: imp 100 Ω, no security circuit	X71A7	AUX Socket
EXTTBUS5	in/ out	digi- tal	LVT, in: 5 V tolerant out: imp 100 Ω, no security circuit	X71A8	AUX Socket
EXTTBUS4	in/ out	digi- tal	LVT, in: 5 V tolerant out: imp 100 Ω, no security circuit	X71A9	AUX Socket
EXTTBUS3	in/ out	digi- tal	LVT, in: 5 V tolerant out: imp 100 Ω, no security circuit	X71A10	AUX Socket
EXTTBUS2	in/ out	digi- tal	LVT, in: 5 V tolerant out: imp 100 Ω, no security circuit	X71A11	AUX Socket
EXTTBUS1	in/ out	digi- tal	LVT, in: 5 V tolerant out: imp 100Ω, no security circuit	X71A12	AUX Socket
GND	in/ out	po- wer		X71B1	
EXTTBUS14	in/ out	digi- tal	LVT, in: 5 V tolerant out: imp 100 Ω, no security circuit	X71B2	AUX Socket
EXTTBUS13	in/ out	digi- tal	LVT, in: 5 V tolerant out: imp 100 Ω, no security circuit	X71B3	AUX Socket

EXTTBUS12	in/ out	digi- tal	LVT, in: 5 V tolerant out: imp 100 Ω, no security circuit	X71B4	AUX Socket
FANSPEED	out	ana- log	U_{DC} = 0 V...2.5 V	X71B12	0V for minimum speed
GND	in/ out	po- wer		X71C1	
RXTX1NCORX	in	digi- tal	LVT, not 5 V tolerant	X71C2	from RXTX, switch NCO RX1
RXTX1NCOTX	in	digi- tal	LVT, not 5 V tolerant	X71C3	from RXTX, switch NCO TX1
RXTX2NCORX	in	digi- tal	LVT, not 5 V tolerant	X71C4	from RXTX, switch NCO RX2
RXTX2NCOTX	in	digi- tal	LVT, not 5 V tolerant	X71C5	from RXTX, switch NCO TX2
GND	in/ out	po- wer		X71C6	
LEDRF1OUT	out	ana- log	4.4 mA, 1.8 V (LED)	X71C7	LED front panel
LEDRF1IN	out	ana- log	4.4 mA, 1.8 V (LED)	X71C8	LED front panel
LEDRF2OUT	out	ana- log	4.4 mA, 1.8 V (LED)	X71C9	LED front panel
LEDRF2IN	out	ana- log	4.4 mA, 1.8 V (LED)	X71C10	LED front panel
LEDRF3OUT	out	ana- log	4.4 mA, 1.8 V (LED)	X71C11	LED front panel
LEDRF4IN	out	ana- log	4.4 mA, 1.8 V (LED)	X71C12	LED front panel
SCK00	in/ out	digi- tal	LVT, 5V tolerant	X71D1	AUDIO board ESSI
SRD00	in/ out	digi- tal	LVT, 5 V tolerant	X71D2	AUDIO board ESSI
STD00	in/ out	digi- tal	LVT, 5 V tolerant	X71D3	AUDIO board ESSI
SC000	in/ out	digi- tal	LVT, 5 V tolerant	X71D4	AUDIO board ESSI
SC010	in/ out	digi- tal	LVT, 5 V tolerant	X71D5	AUDIO board ESSI
SC020	in/ out	digi- tal	LVT, 5 V tolerant	X71D6	AUDIO board ESSI
SCK10	in/ out	digi- tal	LVT, 5 V tolerant	X71D7	AUDIO board ESSI

SRD10	in/ out	digi- tal	LVT, 5 V tolerant	X71D8	AUDIO board ESSI
STD10	in/ out	digi- tal	LVT, 5 V tolerant	X71D9	AUDIO board ESSI
SC100	in/ out	digi- tal	LVT, 5 V tolerant	X71D10	AUDIO board ESSI
SC110	in/ out	digi- tal	LVT, 5 V tolerant	X71D11	AUDIO board ESSI
SC120	in/ out	digi- tal	LVT, 5 V tolerant	X71D12	AUDIO board ESSI
GND	in/ out	po- wer		X72A1	
+5VREF	in	ana- log	+5 V ±1 mV, <0.1 mA	X72A2	Reference
GND	in/ out	po- wer		X72A3	
+3.3 V	in	po- wer	+3.3 V ±165 mV	X72A4	
+3.3 V	in	po- wer	+3.3 V ±165 mV	X72A5	
+5.2 V	in	po- wer	+5.2 V +0/-156 mV	X72A6	
+5.2 V	in	po- wer	+5.2 V +0/-156 mV	X72A7	
GND	in/ out	po- wer		X72A8	
+3.3 V	in	po- wer	+3.3 V ±165 mV	X72A9	
+3.3 V	in	po- wer	+3.3 V ±165 mV	X72A10	
+12 V	in	po- wer	+12 V ±600 mV	X72A11	
GND	in/ out	po- wer		X72A12	
-12 V	in	po- wer	-12 V ±600 mV	X72A13	
GND	in/ out	po- wer		X72A14	
+6 V	in	po- wer	+6 V +800/-200 mV	X72A15	

GND	in/ out	po- wer		X72A16	
PROGNETCLK	out	digi- tal	100 kHz...42 MHz, LVT, output impedance 50 Ω	X72A17	Programmable netclock
GND	in/ out	po- wer		X72A18	
LH1DIQCLK	out	digi- tal	100 kHz...42 MHz, LVT	X72A19	Sample clock demodulated IQ UNIVERSAL SIGNALING UNIT 1, data valid on falling edge: t_{su}>5ns, t_h>3ns
LH1NETCLK	out	digi- tal	100 kHz...42 MHz, LVT	X72A20	Netclock UNIVERSAL SIGNALING UNIT 1, phase to LH1DIQCLK is not defined
GND	in/ out	po- wer		X72A21	
LH2DIQCLK	out	digi- tal	100 kHz...42 MHz, LVT	X72A22	Sample clock demodulated IQ UNIVERSAL SIGNALING UNIT 2, data valid on falling edge: t_{su}>5ns, t_h>3ns
LH2NETCLK	out	digi- tal	100 kHz...42 MHz, LVT	X72A23	Netclock IQ UNIVERSAL SIGNALING UNIT 2, phase to LH2DIQCLK is not defined
GND	in/ out	po- wer		X72A24	
GND	in/ out	po- wer		X72B1	
DIAGNOSIS	in	ana- log	-5 V...+5 V, imp. 1MΩ	X72B2	Diagnosis line
GND	in/ out	po- wer		X72B3	
+3.3 V	in	po- wer	+3.3 V ±165 mV	X72B4	
+3.3 V	in	po- wer	+3.3 V ±165 mV	X72B5	
+5.2 V	in	po- wer	+5.2 V +0/-156 mV	X72B6	
+5.2 V	in	po- wer	+5.2 V +0/-156 mV	X72B7	
GND	in/ out	po- wer		X72B8	
+3.3 V	in	po- wer	+3.3V ±165 mV	X72B9	
+3.3 V	in	po- wer	+3.3V ±165 mV	X72B10	

AUXI2CSDA	in/ out	digi- tal	LVT, not 5 V tolerant	X72B11	I^2C bus auxiliary data
AUXI2CSCL	out	digi- tal	LVT, not 5 V tolerant	X72B12	I^2C bus auxiliary clock
GND	in/ out	po- wer		X72B13	
FEI2CSDA	in/ out	digi- tal	LVT, not 5 V tolerant	X72B14	I^2C bus FRONTEND data
FEI2CSCL	out	digi- tal	LVT, not 5 V tolerant	X72B15	I^2C bus FRONTEND clock
GND	in/ out	po- wer		X72B16	
ADXIN	out	digi- tal	16 kHz...160 kHz, TTL	X72B17	FRONTEND ADC clock
ADSCL	in	digi- tal	LVT, 5 V tolerant	X72B18	FRONTEND ADC data clock
ADSDATA	in	digi- tal	LVT, 5V tolerant	X72B19	FRONTEND ADC data
ADSCAL	out	digi- tal	LVT	X72B20	FRONTEND ADC calibrate
ADRDY	in	digi- tal	LVT, 5V tolerant	X72B21	FRONTEND ADC ready
ADCS	out	digi- tal	LOW	X72B22	FRONTEND ADC chip select: tied to GND
ADCONV	out	digi- tal	LVT	X72B23	FRONTEND ADC start convert
GND	in/ out	po- wer		X72B24	
GND	in/ out	po- wer		X72C1	
RXTX1CLK	out	digi- tal	LVT	X72C2	serial clock
RXTX1DCDATA	out	digi- tal	LVT	X72C3	serial data DIG→RXTX
RXTX1TXSET	out	digi- tal	LVT	X72C4	do TX settings
RXTX1RXSET	out	digi- tal	LVT	X72C6	do RX settings
RXTX1RXSETACK	in	digi- tal	LVT, 5 V tolerant	X72C7	RX settings finished
RXTX1TXSETACK	in	digi- tal	LVT, 5 V tolerant	X72C8	TX settings finished

RXTX1STEPCLK	out	digi-tal	LVT	X72C10	Spectrum frequency step
RXTX1CDFRAME	in	digi-tal	LVT, 5 V tolerant	X72C11	Serial frame RXTX→DIG
RXTX1CDDATA	in	digi-tal	LVT, 5 V tolerant	X72C12	Serial data RXTX→DIG
RXTX2CLK	out	digi-tal	LVT	X72C14	Serial clock
RXTX2DCDATA	out	digi-tal	LVT	X72C15	Serial data DIG→RXTX
RXTX2TXSET	out	digi-tal	LVT	X72C16	Do TX settings
RXTX2RXSET	out	digi-tal	LVT	X72C18	Do RX settings
RXTX2RXSETACK	in	digi-tal	LVT, 5V tolerant	X72C19	RX settings finished
RXTX2TXSETACK	in	digi-tal	LVT, 5V tolerant	X72C20	TX settings finished
RXTX2STEPCLK	out	digi-tal	LVT	X72C22	Spectrum frequency step
RXTX2CDFRAME	in	digi-tal	LVT, 5 V tolerant	X72C23	Serial frame RXTX→DIG
RXTX2CDDATA	in	digi-tal	LVT, 5 V tolerant	X72C24	Serial data RXTX→DIG
GND	in/ out	po-wer		X72D1	
RXTX1POWREGSTRB	out	digi-tal	LVT	X72D2	Takeover attenuator register
RXTX1KUPRESET	out	digi-tal	LVT	X72D3	reset corr proc
RXTX1KUPIRQ	in	digi-tal	LVT, 5 V tolerant	X72D4	DPRAM interrupt
GND	in/ out	po-wer		X72D5	
RXTX2POWREGSTRB	out	digi-tal	LVT	X72D6	takeover attenuator register
RXTX2KUPRESET	out	digi-tal	LVT	X72D7	reset corr proc
RXTX2KUPIRQ	in	digi-tal	LVT, 5 V tolerant	X72D8	DPRAM interrupt

GND	in/ out	po- wer		X72D9	
LH1CSDPRAM	out	digi- tal	LVT	X72D10	chip select DPRAM
LH1CSLHCONTROL	out	digi- tal	LVT	X72D11	chip select control register
LH1DRVENABLE	out	digi- tal	LVT	X72D12	buffer enable
LHDRVDIR	out	digi- tal	LVT	X72D13	buffer direction
LH1LHINT	in	digi- tal	LVT, 5 V tolerant	X72D14	DPRAM interrupt
GND	in/ out	po- wer		X72D15	
LH2CSDPRAM	out	digi- tal	LVT	X72D16	chip select DPRAM
LH2CSLHCONTROL	out	digi- tal	LVT	X72D17	chip select control register
LH2DRVENABLE	out	digi- tal	LVT	X72D18	buffer enable
LHDRVDIR	out	digi- tal	LVT	X72D19	buffer direction
LH2LHINT	in	digi- tal	LVT, 5 V tolerant	X72D20	DPRAM interrupt
POWERINT	in	digi- tal	LVT, 5 V tolerant	X72D21	wideband power interrupt, active low
LH1SIGINT	in	digi- tal	LVT, 5 V tolerant	X72D22	signalling interrupt
LH2SIGINT	in	digi- tal	LVT, 5 V tolerant	X72D23	signalling interrupt
GND	B	po- wer		X72D24	
LH1DID0	out	digi- tal	LVT	X73A1	Demodulated data I for UNIVERSAL SIGNALING UNIT, clock signal: see LH1DIQCLK
LH1DID1	out	digi- tal	LVT	X73A2	
LH1DID2	out	digi- tal	LVT	X73A3	
LH1DID3	out	digi- tal	LVT	X73A4	

LH1DID4	out	digi-tal	LVT	X73A5	
LH1DID5	out	digi-tal	LVT	X73A6	
LH1DID6	out	digi-tal	LVT	X73A7	
LH1DID7	out	digi-tal	LVT	X73A8	
LH1DID8	out	digi-tal	LVT	X73A9	
LH1DID9	out	digi-tal	LVT	X73A10	
LH1DID10	out	digi-tal	LVT	X73A11	
LH1DID11	out	digi-tal	LVT	X73A12	
LH1DQD0	out	digi-tal	LVT	X73A13	Demodulated data Q for UNIVERSAL SIGNALING UNIT, clock signal: see LH1DIQCLK
LH1DQD1	out	digi-tal	LVT	X73A14	
LH1DQD2	out	digi-tal	LVT	X73A15	
LH1DQD3	out	digi-tal	LVT	X73A16	
LH1DQD4	out	digi-tal	LVT	X73A17	
LH1DQD5	out	digi-tal	LVT	X73A18	
LH1DQD6	out	digi-tal	LVT	X73A19	
LH1DQD7	out	digi-tal	LVT	X73A20	
LH1DQD8	out	digi-tal	LVT	X73A21	
LH1DQD9	out	digi-tal	LVT	X73A22	
LH1DQD10	out	digi-tal	LVT	X73A23	
LH1DQD11	out	digi-tal	LVT	X73A24	

GND	in/ out	po- wer		X73B1	
LH1SERCLK	out	digi- tal	LVT	X73B2	serial interface UNIVERSAL SIGNALING UNIT1 clock
LH1SERLDDATA	in	digi- tal	LVT, 5 V tolerant	X73B3	serial interface data USU1→DIG
LH1SERLDFRAME	in	digi- tal	LVT, 5 V tolerant	X73B4	serial interface frame USU1→DIG
LH1SERDLDATA	out	digi- tal	LVT	X73B5	serial interface data DIG→USU1
GND	B	po- wer		X73B6	
LH1TXSET	in	digi- tal	LVT, 5 V tolerant	X73B7	TX set strobe from UNIVERSAL SIGNALING UNIT1
LH1RXSET	in	digi- tal	LVT, 5 V tolerant	X73B8	RX set strobe from UNIVERSAL SIGNALING UNIT1
LH1POWREGSTRB	in	digi- tal	LVT, 5 V tolerant	X73B9	TX power register strobe from UNIVERSAL SIGNALING UNIT1
LH1RSVD1	in/ out	digi- tal	LVT, 5 V tolerant	X73B10	reserved
GND	in/ out	po- wer		X73B11	
RXTX1DCFRAME	out	digi- tal	LVT	X73B12	serial frame DIG→RXTX
RXTX1RES1	in/ out	digi- tal	LVT, 5 V tolerant	X73B13	reserved
LH1SERDLFRAME	out	digi- tal	LVT	X73B14	serial interface frame DIG→LH1
LH1RSVD2	in/ out	digi- tal	LVT, 5 V tolerant	X73B15	reserved
GND	in/ out	po- wer		X73B16	
LH1PRITXI	in	ana- log	0 Hz...1.5 MHz, U_{PEAK} = 2.5 V, 0 V, imp. 1.5 kΩ	X73B17	primary modulation I
LH1PRITXQ	in	ana- log	0 Hz...1.5 MHz, U_{PEAK} = 2.5 V, 0 V, imp. 1.5 kΩ	X73B18	primary modulation Q
LH1PRITXIQGND	in/ out	ana- log		X73B19	optionally tied to GND

GND	B	power		X73B20	
LH1SECTXI	in	analog	0 Hz...1.5 MHz, U_{PEAK} = 2.5 V, 0 V, imp. 1.5 kΩ	X73B21	secondary modulation I
LH1SECTXQ	in	analog	0 Hz...1.5 MHz, U_{PEAK} = 2.5 V, 0 V, imp. 1.5 kΩ	X73B22	secondary modulation Q
LH1SECTXIQGND	B	analog		X73B23	optionally tied to GND
GND	B	power		X73B24	
LH2DID0	out	digital	LVT	X73C1	Demodulated data I for UNIVERSAL SIGNALING UNIT2, clock signal: see LH2DIQCLK
LH2DID1	out	digital	LVT	X73C2	
LH2DID2	out	digital	LVT	X73C3	
LH2DID3	out	digital	LVT	X73C4	
LH2DID4	out	digital	LVT	X73C5	
LH2DID5	out	digital	LVT	X73C6	
LH2DID6	out	digital	LVT	X73C7	
LH2DID7	out	digital	LVT	X73C8	
LH2DID8	out	digital	LVT	X73C9	
LH2DID9	out	digital	LVT	X73C10	
LH2DID10	out	digital	LVT	X73C11	
LH2DID11	out	digital	LVT	X73C12	
LH2DQD0	out	digital	LVT	X73C13	Demodulated data Q for UNIVERSAL SIGNALING UNIT2, clock signal: see LH2DIQCLK
LH2DQD1	out	digital	LVT	X73C14	

LH2DQD2	out	digi-tal	LVT	X73C15	
LH2DQD3	out	digi-tal	LVT	X73C16	
LH2DQD4	out	digi-tal	LVT	X73C17	
LH2DQD5	out	digi-tal	LVT	X73C18	
LH2DQD6	out	digi-tal	LVT	X73C19	
LH2DQD7	out	digi-tal	LVT	X73C20	
LH2DQD8	out	digi-tal	LVT	X73C21	
LH2DQD9	out	digi-tal	LVT	X73C22	
LH2DQD10	out	digi-tal	LVT	X73C23	
LH2DQD11	out	digi-tal	LVT	X73C24	
GND	B	po-wer		X73D1	
LH2SERCLK	out	digi-tal	LVT	X73D2	serial interface UNIVERSAL SIGNALING UNIT2 clock
LH2SERLDDATA	in	digi-tal	LVT, 5 V tolerant	X73D3	serial interface data USU2→DIG
LH2SERLDFRAME	in	digi-tal	LVT, 5 V tolerant	X73D4	serial interface frame USU2→DIG
LH2SERDLDATA	out	digi-tal	LVT	X73D5	serial interface data DIG→USU2
GND	B	po-wer		X73D6	
LH2TXSET	in	digi-tal	LVT, 5 V tolerant	X73D7	TX set strobe from UNIVERSAL SIGNALING UNIT2
LH2RXSET	in	digi-tal	LVT, 5 V tolerant	X73D8	RX set strobe from UNIVERSAL SIGNALING UNIT2
LH2POWREGSTRB	in	digi-tal	LVT, 5 V tolerant	X73D9	TX power register strobe from UNIVERSAL SIGNALING UNIT2
LH2RSVD1	B	digi-tal	LVT, 5 V tolerant	X73D10	reserved

GND	B	power		X73D11	
RXTX2DCFRAME	out	digital	LVT	X73D12	serial frame DIG→RXTX
RXTX2RES1	B	digital	LVT, 5 V tolerant	X73D13	reserved
LH2SERDLFRAME	out	digital	LVT	X73D14	serial interface frame DIG→USU2
LH2RSVD2	B	digital	LVT, 5 V tolerant	X73D15	reserved
GND	B	power		X73D16	
LH2PRITXI	in	analog	0...1.5 MHz, U_{PEAK} = 2.5 V, 0 V, imp. 1.5 kΩ	X73D17	primary modulation I
LH2PRITXQ	in	analog	0..1,5 MHz, U_{PEAK} = 2.5 V, 0 V, imp. 1.5 kΩ	X73D18	primary modulation Q
LH2PRITXIQGND	B	analog		X73D19	optionally tied to GND
GND	B	power		X73D20	
LH2SECTXI	in	analog	0...1.5 MHz, U_{PEAK} = 2.5 V, 0 V, imp. 1.5 kΩ	X73D21	secondary modulation I
LH2SECTXQ	in	analog	0...1.5 MHz, U_{PEAK} = 2.5 V, 0 V, imp. 1.5 kΩ	X73D22	secondary modulation Q
LH2SECTXIQGND	B	analog		X73D23	optionally tied to GND
GND	B	power		X73D24	
LH1MID0	in	digital	LVT, 5 V tolerant	X74A1	Modulation data I from UNIVERSAL SIGNALING UNIT1
LH1MID1	in	digital	LVT, 5 V tolerant	X74A2	
LH1MID2	in	digital	LVT, 5 V tolerant	X74A3	
LH1MID3	in	digital	LVT, 5 V tolerant	X74A4	
LH1MID4	in	digital	LVT, 5 V tolerant	X74A5	

LH1MID5	in	digi-tal	LVT, 5 V tolerant	X74A6	
LH1MID6	in	digi-tal	LVT, 5 V tolerant	X74A7	
LH1MID7	in	digi-tal	LVT, 5 V tolerant	X74A8	
LH1MID8	in	digi-tal	LVT, 5 V tolerant	X74A9	
LH1MID9	in	digi-tal	LVT, 5 V tolerant	X74A10	
LH1MID10	in	digi-tal	LVT, 5 V tolerant	X74A11	
LH1MID11	in	digi-tal	LVT, 5 V tolerant	X74A12	
LH1MQD0	in	digi-tal	LVT, 5 V tolerant	X74A13	Modulation data Q from UNIVERSAL SIGNALING UNIT1
LH1MQD1	in	digi-tal	LVT, 5 V tolerant	X74A14	
LH1MQD2	in	digi-tal	LVT, 5 V tolerant	X74A15	
LH1MQD3	in	digi-tal	LVT, 5 V tolerant	X74A16	
LH1MQD4	in	digi-tal	LVT, 5 V tolerant	X74A17	
LH1MQD5	in	digi-tal	LVT, 5 V tolerant	X74A18	
LH1MQD6	in	digi-tal	LVT, 5 V tolerant	X74A19	
LH1MQD7	in	digi-tal	LVT, 5 V tolerant	X74A20	
LH1MQD8	in	digi-tal	LVT, 5 V tolerant	X74A21	
LH1MQD9	in	digi-tal	LVT, 5 V tolerant	X74A22	
LH1MQD10	in	digi-tal	LVT, 5 V tolerant	X74A23	
LH1MQD11	in	digi-tal	LVT, 5 V tolerant	X74A24	
GND	in/ out	po-wer		X74B1	

LH1MIQCLK	in/ out	digi- tal	LVT, 5 V tolerant	X74B2	clock for modulation IQ, data valid on rising edge: t_{su}>15ns, t_h>10ns
GND	in/ out	po- wer		X74B3	
LH1TBUS1	in/ out	digi- tal	LVT, 5 V tolerant	X74B4	programmable
LH1TBUS2	in/ out	digi- tal	LVT, 5 V tolerant	X74B5	programmable
LH1TBUS3	in/ out	digi- tal	LVT, 5 V tolerant	X74B6	programmable
LH1TBUS4	in/ out	digi- tal	LVT, 5 V tolerant	X74B7	programmable
LH1TBUS5	in/ out	digi- tal	LVT, 5 V tolerant	X74B8	programmable
LH1TBUS6	in/ out	digi- tal	LVT, 5 V tolerant	X74B9	programmable
LH1TBUS7	in/ out	digi- tal	LVT, 5 V tolerant	X74B10	programmable
LH1TBUS8	in/ out	digi- tal	LVT, 5 V tolerant	X74B11	programmable
GND	in/ out	po- wer		X74B12	
LH1DEMSERDAT1	out	digi- tal	LVT	X74B13	
LH1DEMSERDAT2	out	digi- tal	LVT	X74B14	
LH1DEMSERCLK	out	digi- tal	LVT	X74B15	
LH1DEMSERSTRB	out	digi- tal	LVT	X74B16	
LH1XSPTXRDY	in/ out	digi- tal		X74B17	not used
LH1BSPBFI	in/ out	digi- tal		X74B18	not used
LH1XSPSP	in/ out	digi- tal		X74B19	not used
LH1BSPTXSFM	in/ out	digi- tal		X74B20	not used
LH1PRISPTAF	in/ out	digi- tal		X74B21	not used

LH1SCIEXTRXD	out	digi-tal	LVT	X74B22	SCI interface data DIG→USU1
LH1SCIEXTTXD	in	digi-tal	LVT, 5 V tolerant	X74B23	SCI interface data USU1→DIG
LH1SCIEXTSCLK	In/ out	digi-tal	LVT, 5 V tolerant	X74B24	SCI interface UNIVERSAL SIGNALING UNIT1 clock
LH1MID0	in	digi-tal	LVT, 5 V tolerant	X74C1	Modulation data I from UNIVERSAL SIGNALING UNIT1
LH1MID1	in	digi-tal	LVT, 5 V tolerant	X74C2	
LH1MID2	in	digi-tal	LVT, 5 V tolerant	X74C3	
LH1MID3	in	digi-tal	LVT, 5 V tolerant	X74C4	
LH1MID4	in	digi-tal	LVT, 5 V tolerant	X74C5	
LH1MID5	in	digi-tal	LVT, 5 V tolerant	X74C6	
LH1MID6	in	digi-tal	LVT, 5 V tolerant	X74C7	
LH1MID7	in	digi-tal	LVT, 5 V tolerant	X74C8	
LH1MID8	in	digi-tal	LVT, 5 V tolerant	X74C9	
LH1MID9	in	digi-tal	LVT, 5 V tolerant	X74C10	
LH1MID10	in	digi-tal	LVT, 5 V tolerant	X74C11	
LH1MID11	in	digi-tal	LVT, 5 V tolerant	X74C12	
LH1MQD0	in	digi-tal	LVT, 5 V tolerant	X74C13	Modulation data Q from UNIVERSAL SIGNALING UNIT1
LH1MQD1	in	digi-tal	LVT, 5 V tolerant	X74C14	
LH1MQD2	in	digi-tal	LVT, 5 V tolerant	X74C15	
LH1MQD3	in	digi-tal	LVT, 5 V tolerant	X74C16	
LH1MQD4	in	digi-tal	LVT, 5 V tolerant	X74C17	

LH1MQD5	in	digi-tal	LVT, 5 V tolerant	X74C18	
LH1MQD6	in	digi-tal	LVT, 5 V tolerant	X74C19	
LH1MQD7	in	digi-tal	LVT, 5 V tolerant	X74C20	
LH1MQD8	in	digi-tal	LVT, 5 V tolerant	X74C21	
LH1MQD9	in	digi-tal	LVT, 5 V tolerant	X74C22	
LH1MQD10	in	digi-tal	LVT, 5 V tolerant	X74C23	
LH1MQD11	in	digi-tal	LVT, 5 V tolerant	X74C24	
GND	in/ out	po-wer		X74D1	
LH2MIQCLK	in/ out	digi-tal	LVT, 5 V tolerant	X74D2	clock for modulation IQ, data valid on rising edge t_{su}>15ns, t_h>10ns
GND	in/ out	po-wer		X74D3	
LH2TBUS1	in/ out	digi-tal	LVT, 5 V tolerant	X74D4	programmable
LH2TBUS2	in/ out	digi-tal	LVT, 5 V tolerant	X74D5	programmable
LH2TBUS3	in/ out	digi-tal	LVT, 5 V tolerant	X74D6	programmable
LH2TBUS4	in/ out	digi-tal	LVT, 5 V tolerant	X74D7	programmable
LH2TBUS5	in/ out	digi-tal	LVT, 5 V tolerant	X74D8	programmable
LH2TBUS6	in/ out	digi-tal	LVT, 5 V tolerant	X74D9	programmable
LH2TBUS7	in/ out	digi-tal	LVT, 5 V tolerant	X74D10	programmable
LH2TBUS8	in/ out	digi-tal	LVT, 5 V tolerant	X74D11	programmable
GND	in/ out	po-wer		X74D12	
LH 2DEMSERDAT1	out	digi-tal	LVT	X74D13	

LH 2DEMSERDAT2	out	digi-tal	LVT	X74D14	
LH 2DEMSERCLK	out	digi-tal	LVT	X74D15	
LH 2DEMSERSTRB	out	digi-tal	LVT	X74D16	
LH2XSPTXRDY	in/ out	digi-tal		X74D17	not used
LH2BSPBFI	in/ out	digi-tal		X74D18	not used
LH2XSPSP	in/ out	digi-tal		X74D19	not used
LH2BSPTXSFM	in/ out	digi-tal		X74D20	not used
LH2PRISPTAF	in/ out	digi-tal		X74D21	not used
LH2SCIEXTRXD	out	digi-tal	LVT	X74D22	SCI interface data DIG→USU2
LH2SCIEXTTXD	in	digi-tal	LVT, 5 V tolerant	X74D23	SCI interface data USU2→DIG
LH2SCIEXTSCLK	in/ out	digi-tal	LVT, 5 V tolerant	X74D24	SCI interface UNIVERSAL SIGNALING UNIT clock
GND	in/ out	po-wer		X75A1	
SD0	in/ out	digi-tal	LVT, 5 V tolerant	X75A2	ISA bus data
SD1	in/ out	digi-tal	LVT, 5 V tolerant	X75A3	
SD2	in/ out	digi-tal	LVT, 5 V tolerant	X75A4	
SD3	in/ out	digi-tal	LVT, 5 V tolerant	X75A5	
SD4	in/ out	digi-tal	LVT, 5 V tolerant	X75A6	
SD5	in/ out	digi-tal	LVT, 5 V tolerant	X75A7	
SD6	in/ out	digi-tal	LVT, 5 V tolerant	X75A8	
SD7	in/ out	digi-tal	LVT, 5 V tolerant	X75A9	
SD8	out	digi-tal	LVT, 5 V tolerant	X75A10	

SD9	out	digi-tal	LVT, 5 V tolerant	X75A11	
SD10	out	digi-tal	LVT, 5 V tolerant	X75A12	
SD11	out	digi-tal	LVT, 5 V tolerant	X75A13	
SD12	out	digi-tal	LVT, 5 V tolerant	X75A14	
SD13	out	digi-tal	LVT, 5 V tolerant	X75A15	
SD14	out	digi-tal	LVT, 5 V tolerant	X75A16	
SD15	out	digi-tal	LVT, 5 V tolerant	X75A17	
GND	in/ out	po-wer		X75A18	
IOW	in	digi-tal	LVT, 5 V tolerant	X75A19	ISA bus IO write
IOR	in	digi-tal	LVT, 5 V tolerant	X75A20	ISA bus IO read
SMEMR	in	digi-tal	LVT, 5 V tolerant	X75A21	ISA bus MEM read
SMEMW	in	digi-tal	LVT, 5 V tolerant	X75A22	ISA bus MEM write
IOCS16	out	digi-tal	Open drain, 5 V tolerant	X75A23	low for 16 bit access
SA0	in	digi-tal	LVT, 5 V tolerant	X75B1	ISA bus address
SA1	in	digi-tal	LVT, 5 V tolerant	X75B2	
SA2	in	digi-tal	LVT, 5 V tolerant	X75B3	
SA3	in	digi-tal	LVT, 5 V tolerant	X75B4	
SA4	in	digi-tal	LVT, 5 V tolerant	X75B5	
SA5	in	digi-tal	LVT, 5 V tolerant	X75B6	
SA6	in	digi-tal	LVT, 5 V tolerant	X75B7	
SA7	in	digi-tal	LVT, 5 V tolerant	X75B8	

SA8	in	digi-tal	LVT, 5 V tolerant	X75B9	
SA9	in	digi-tal	LVT, 5 V tolerant	X75B10	
SA10	in	digi-tal	LVT, 5 V tolerant	X75B11	
SA11	in	digi-tal	LVT, 5 V tolerant	X75B12	
SA12	in	digi-tal	LVT, 5 V tolerant	X75B13	
SA13	in	digi-tal	LVT, 5 V tolerant	X75B14	
SA14	in	digi-tal	LVT, 5 V tolerant	X75B15	
SA15	in	digi-tal	LVT, 5 V tolerant	X75B16	
SA16	in	digi-tal	LVT, 5 V tolerant	X75B17	
SA17	in	digi-tal	LVT, 5 V tolerant	X75B18	
SA18	in	digi-tal	LVT, 5 V tolerant	X75B19	
SA19	in	digi-tal	LVT, 5 V tolerant	X75B20	
AEN	in	digi-tal	LVT, 5 V tolerant	X75B21	ISA bus address enable
SELBASEADR	in	digi-tal	LVT, 5 V tolerant	X75B22	ground for DIGITAL BOARD1
RESDRV	in	digi-tal	LVT, 5 V tolerant	X75B23	ISA bus reset
GND	in/ out	po-wer		X75B24	
IRQ3				X75C1	not used
IRQ4				X75C2	not used
IRQ5				X75C3	not used
IRQ6				X75C4	not used
IRQ7				X75C5	not used
IRQ9				X75C6	not used
IRQ10	out	digi-tal	Open drain, 5 V tolerant	X75C7	rising edge for interrupt

IRQ11	out	digi-tal	Open drain, 5 V tolerant	X75C8	rising edge for interrupt
IRQ12				X75C9	not used
IRQ14				X75C10	not used
IRQ15				X75C11	not used
IRQ16				X75C12	not used
IRQ17	out	digi-tal	Open drain, 5 V tolerant	X75C13	rising edge for interrupt
IRQ18	out	digi-tal	Open drain, 5 V tolerant	X75C14	rising edge for interrupt
IRQ19	out	digi-tal	Open drain, 5 V tolerant	X75C15	rising edge for interrupt
AUDIOIRQ	in	digi-tal	LVT, 5 V tolerant	X75C16	Interrupt from AUDIO BOARD
AUDIOAEN	out	digi-tal	LVT	X75C17	board select from AUDIO BOARD
REFAEN	out	digi-tal	LVT	X75C18	board select from REFERENCE BOARD
BSA0	out	digi-tal	LVT	X75C19	buffered ISA bus addresses
BSA1	out	digi-tal	LVT	X75C20	
BSA2	out	digi-tal	LVT	X75C21	
BSA3	out	digi-tal	LVT	X75C22	
BIOR	out	digi-tal	LVT	X75C23	buffered ISA bus IO read
BIOW	out	digi-tal	LVT	X75C24	buffered ISA bus IO write
PCFINT	in	digi-tal	LVT, 5 V tolerant	X75D1	
RXTX1POWERINT	in	digi-tal	LVT, 5 V tolerant	X75D2	active low
RXTX2POWERINT	in	digi-tal	LVT, 5 V tolerant	X75D3	active low
IMODUFILAUC1	out	ana-log	0 Hz...1.5 MHz, U_{PEAK} = 2.5 V, U_{DC} = 0 V, imp. < 10 Ω	X75D4	Output of TX modulation IQ
QMODUFILAUC1	out	ana-log	0 Hz...1.5 MHz, U_{PEAK} = 2.5 V, U_{DC} = 0 V, imp. <10 Ω	X75D5	Output of TX modulation IQ

I_MODTOAUC1	in	analog	0 Hz...1.5 MHz, U_{PEAK} = 2.5 V, U_{DC} = 0 V, imp. 10 kΩ	X75D6	Input of TX modulation IQ
Q_MODTOAUC1	in	analog	0 Hz...1.5 MHz U_{PEAK} = 2.5 V, U_{DC} = 0 V, imp. 10 kΩ	X75D7	Input of TX modulation IQ
IMODUFILAUC2	out	analog	0 Hz...1.5 MHz, U_{PEAK} = 2.5 V, U_{DC} = 0 V, imp. < 10Ω	X75D8	Output of TX modulation IQ
QMODUFILAUC2	out	analog	0 Hz...1.5 MHz, U_{PEAK} = 2.5 V, U_{DC} = 0 V, imp. < 10 Ω	X75D9	Output of TX modulation IQ
I_MODTOAUC2	in	analog	0 Hz...1.5 MHz, U_{PEAK} = 2.5 V, U_{DC} = 0 V, imp. 10 kΩ	X75D10	Input of TX modulation IQ
Q_MODTOAUC2	in	analog	0 Hz...1.5 MHz, U_{PEAK} = 2.5 V, U_{DC} = 0 V, imp. 10 kΩ	X75D11	Input of TX modulation IQ
BRESET	out	digital	LVT	X75D14	buffered reset
GND	B	power		X75D15	
BSD0	B	digital	LVT, 5 V tolerant	X75D16	buffered ISA bus data
BSD1	B	digital	LVT, 5 V tolerant	X75D17	
BSD2	B	digital	LVT, 5 V tolerant	X75D18	
BSD3	B	digital	LVT, 5 V tolerant	X75D19	
BSD4	B	digital	LVT, 5 V tolerant	X75D20	
BSD5	B	digital	LVT, 5 V tolerant	X75D21	
BSD6	B	digital	LVT, 5 V tolerant	X75D22	
BSD7	B	digital	LVT, 5 V tolerant	X75D23	
GND	B	power		X75D24	

ROHDE&SCHWARZ

Schaltteillisten
Stromläufe
Bestückungspläne

Part lists
Circuit diagrams
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Listes des pièces détachées
Schémas de circuit
Plans des composants

095.1000 Bl. 2

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
.	XX VARIANTENERKLAERUNG IDENTIFICATION OF MODELS				
C1	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..10	CERAMIC CHIP CAPACITOR				
C11	CC 100PF+-1% 50VNPO 0603	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
C12	CC 10NF+-10% 50VHDK 0603	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
..14	SMD-CERAMIC-CAPACITOR				
C15	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..30	CERAMIC CHIP CAPACITOR				
C31	CC 10PF+-0,1 50V NPO 0603	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
	SMD-CERAMIC-CAPACITOR				
C32	CC 180PF+-1% 50V NPO 0603	1097.6305.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
C33	CC 10PF+-0,1 50V NPO 0603	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
	SMD-CERAMIC-CAPACITOR				
C34	CC 10PF+-0,1 50V NPO 0603	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
	SMD-CERAMIC-CAPACITOR				
C35	CC 10PF+-0,1 50V NPO 0603	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
	SMD-CERAMIC-CAPACITOR				
C36	CC 22PF+-1% 50VNPO 0603	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
C37	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..43	CERAMIC CHIP CAPACITOR				
C44	CC 22PF+-1% 50VNPO 0603	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
C45	CC 22PF+-1% 50VNPO 0603	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
C55	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C60	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..62	CERAMIC CHIP CAPACITOR				
C63	CC 22PF+-1% 50VNPO 0603	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
C64	CC 1,0NF+-10%50V HDK 0603	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
..66	SMD-CERAMIC-CAPACITOR				
C69	CC 10NF+-10% 50VHDK 0603	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
..71	SMD-CERAMIC-CAPACITOR				
C72	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..79	CERAMIC CHIP CAPACITOR				
C80	CC 10NF+-10% 50VHDK 0603	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
..82	SMD-CERAMIC-CAPACITOR				
C83	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C84	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C85	CC 10NF+-10% 50VHDK 0603	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
	SMD-CERAMIC-CAPACITOR				
C86	CC 10NF+-10% 50VHDK 0603	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
	SMD-CERAMIC-CAPACITOR				
C87	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C88	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C91	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C92	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C93	CC 10NF+-10% 50VHDK 0603	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
..100	SMD-CERAMIC-CAPACITOR				
C101	CC 1,0NF+-10%50V HDK 0603	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
..103	SMD-CERAMIC-CAPACITOR				
C104	CC 10NF+-10% 50VHDK 0603	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
..119	SMD-CERAMIC-CAPACITOR				
C120	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C121	CC 10NF+-10% 50VHDK 0603	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
..139	SMD-CERAMIC-CAPACITOR				
C141	CC 22PF+-1% 50VNPO 0603	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
C142	CC 22UF+80-20% 10V 1210	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
	CERAMIC CAPACITOR				
C143	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..146	CERAMIC CHIP CAPACITOR				
C147	CC 4,7PF0,1PF50V NPO 0603	0009.4538.00	MURATA	GRM39C0G***B50ZPT	
..150	SMD-CERAMIC-CAPACITOR				

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C151	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..154	CERAMIC CHIP CAPACITOR				
C155	CC 3,3PF 1% 50V NPO 0603	0009.8285.00	MURATA	GRM39COG***B50ZPT	
	SMD-CERAMIC-CAPACITOR				
C156	CC 3,3PF 1% 50V NPO 0603	0009.8285.00	MURATA	GRM39COG***B50ZPT	
	SMD-CERAMIC-CAPACITOR				
C157	CC 3,3PF 1% 50V NPO 0603	0009.8285.00	MURATA	GRM39COG***B50ZPT	
	SMD-CERAMIC-CAPACITOR				
C158	CC 3,3PF 1% 50V NPO 0603	0009.8285.00	MURATA	GRM39COG***B50ZPT	
	SMD-CERAMIC-CAPACITOR				
C159	CC 3,3PF 1% 50V NPO 0603	0009.8285.00	MURATA	GRM39COG***B50ZPT	
	SMD-CERAMIC-CAPACITOR				
C160	CC 3,3PF 1% 50V NPO 0603	0009.8285.00	MURATA	GRM39COG***B50ZPT	
	SMD-CERAMIC-CAPACITOR				
C161	CC 3,3PF 1% 50V NPO 0603	0009.8285.00	MURATA	GRM39COG***B50ZPT	
	SMD-CERAMIC-CAPACITOR				
C162	CC 3,3PF 1% 50V NPO 0603	0009.8285.00	MURATA	GRM39COG***B50ZPT	
	SMD-CERAMIC-CAPACITOR				
C163	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C170	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C172	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..179	CERAMIC CHIP CAPACITOR				
C181	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..184	CERAMIC CHIP CAPACITOR				
C187	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..190	CERAMIC CHIP CAPACITOR				
C191	CC 22UF+80-20% 10V 1210	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
	CERAMIC CAPACITOR				
C192	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..195	CERAMIC CHIP CAPACITOR				
C196	CC 1,0NF+-10%50V HDK 0603	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
	SMD-CERAMIC-CAPACITOR				
C197	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..211	CERAMIC CHIP CAPACITOR				
C212	CC 22PF+-1% 50VNPO 0603	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
C213	CC 4,7NF+-10% 50VHDK 0603	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
	SMD-CERAMIC-CAPACITOR				
C214	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C215	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C216	CC 10NF+-10% 50VHDK 0603	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
	SMD-CERAMIC-CAPACITOR				
C217	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..237	CERAMIC CHIP CAPACITOR				
C238	CC 10NF+-10% 50VHDK 0603	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
	SMD-CERAMIC-CAPACITOR				
C239	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C240	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C241	CC 10NF+-10% 50VHDK 0603	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
	SMD-CERAMIC-CAPACITOR				
C242	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C244	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C245	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C247	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C249	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..263	CERAMIC CHIP CAPACITOR				
C264	CC 10NF+-10% 50VHDK 0603	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
	SMD-CERAMIC-CAPACITOR				
C265	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..270	CERAMIC CHIP CAPACITOR				
C271	CC 1,0NF+-10%50V HDK 0603	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
	SMD-CERAMIC-CAPACITOR				
C272	CC 1,0NF+-10%50V HDK 0603	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
	SMD-CERAMIC-CAPACITOR				
C273	CC 1,0NF+-10%50V HDK 0603	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
	SMD-CERAMIC-CAPACITOR				
C274	CC 1,0NF+-10%50V HDK 0603	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
	SMD-CERAMIC-CAPACITOR				

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C275 ..288	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C289	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C290	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C291	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C292	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C293	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C294	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C295	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39C0G***F50ZPT	
C299	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C300	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C301 ..304	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C305	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C306	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C307	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C308	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C309	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C310	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C311	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C312	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C313	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C314	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C315	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C316	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C317	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C318	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C319	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39C0G***F50ZPT	
C320	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39C0G***F50ZPT	
C321	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39C0G***F50ZPT	
C322	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C323	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C324	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39C0G***F50ZPT	
C325 ..341	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C342	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C343	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C344	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C345 ..348	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C349	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C350	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C351	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C352	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C353	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C354	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C355	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39COG***F50ZPT	
C356	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39COG***F50ZPT	
C357	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C358	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39COG***F50ZPT	
C359	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39COG***F50ZPT	
C360	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C361	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39COG***F50ZPT	
D1	BL PC74HCT688T 8B.COMPAR. MAGNITUDE COMPARATOR	BL 0007.6762.00	PHILIPS_SE	(PC)74HCT688(D/T)	
D20	BL 74LVC14DB 6XINV.SCHM INV.SCHMITT-TRIGGER	1104.2570.00	PHILIPS_SE	74LVC14(A)(DB)	
D21	BL 74LVT08DB 4X2AND 3.3V QUAD 2-IN AND GATE	0048.3180.00	PHILIPS_SE	74LVT08(DB)	
D22	BL 74LVC245ADB 8BIT T/R D IV 74LVC245ADB	4052.5315.00	PHILIPS_SE	74LVC245A(DB)	
D23	BL 74LVT125DB 4XBUFF. 3S 3.3V QUAD BUFFER 3 STATE	0048.3239.00	PHILIPS_SE	74LVT125(DB)	
D24	BL 74LVC244ADB 2X4 BUF/DR IC 74LVC244ADB	4052.5309.00	PHILIPS_SE	74LVC244A(DB)	
D25	BL 74LVC138DB 3TO8 DEC LINE DECODER	1104.2592.00	PHILIPS_SE	74LVC138(DB)	
D26	BL 74LVC138DB 3TO8 DEC LINE DECODER	1104.2592.00	PHILIPS_SE	74LVC138(DB)	
D27	BL PC74HCT245T 8XTRANSC OCTAL BUS TRANSCEIVER	BL 0007.5414.00	PHILIPS_SE	(PC)74HCT245(D/T)	
D28	BL 74LVC245ADB 8BIT T/R D IV 74LVC245ADB	4052.5315.00	PHILIPS_SE	74LVC245A(DB)	
D29	BL 74LVC138DB 3TO8 DEC LINE DECODER	1104.2592.00	PHILIPS_SE	74LVC138(DB)	
D30	BL 74LVT125DB 4XBUFF. 3S 3.3V QUAD BUFFER 3 STATE	0048.3239.00	PHILIPS_SE	74LVT125(DB)	
D31	BL PC74HCT245T 8XTRANSC OCTAL BUS TRANSCEIVER	BL 0007.5414.00	PHILIPS_SE	(PC)74HCT245(D/T)	
D41 ..43	BL 74LVT273DB 8XD-FF 3.3V OCTAL D FLIP-FLOP	1100.4284.00	PHILIPS_SE	(74)LVT273(DB)	
D44	BS DG408DY 8CH.ANAL.MUX IC 8 CH ANALOG MULTIPLEX	1036.4460.00	SILICONIX	DG408DY	
D45	BJ CS5507AS 1X16B.ADC IC ANALOG/DIGITAL CONV	1051.4280.00	CRYSTAL	CS5507-AS	
D46	BS DG419DY 1XUM ANALOGSCH ANALOG SWITCH	0746.0322.00	SILICONIX	DG419DY	
D49	BL 74LVT32DB 4X2OR 3.3V QUAD 2-INPUT OR GATE	0048.3216.00	PHILIPS_SE	74LVT32DB	
D50	BL 74LVT273DB 8XD-FF 3.3V OCTAL D FLIP-FLOP	1100.4284.00	PHILIPS_SE	(74)LVT273(DB)	
D51 ..53	BL 74LVT00DB 4X2NAND 3.3V QUAD 2-IN NAND GATE	0048.3151.00	PHILIPS_SE	74LVT00DB	
D54	BL 74LVT10DB 3X3NAND 3.3V TRIPLE 3-NAND GATE	1097.6440.00	PHILIPS_SE	74LVT10(DB)	
D55	BL 74LVT10DB 3X3NAND 3.3V TRIPLE 3-NAND GATE	1097.6440.00	PHILIPS_SE	74LVT10(DB)	
D56	BL 74LVC74DB 2XD-FF IC DUAL D-TYPE FLIP FLOP	1104.2563.00	PHILIPS_SE	74LVC74(DB)	
D57	BL 74LVC74DB 2XD-FF IC DUAL D-TYPE FLIP FLOP	1104.2563.00	PHILIPS_SE	74LVC74(DB)	
D60	BC X24164S8I-2.7 IC MEMORY	0048.4258.00	XICOR	X24164S G	
D61	BC XC4013XL-3 13K GAT LCA IC LOGIK ARRAY	0048.5154.00	XILINX	XC4013XL-3PQ240C	
D62	BC XC4013XL-3 13K GAT LCA IC LOGIK ARRAY	0048.5154.00	XILINX	XC4013XL-3PQ240C	
D63	BL 74LVT273DB 8XD-FF 3.3V OCTAL D FLIP-FLOP	1100.4284.00	PHILIPS_SE	(74)LVT273(DB)	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
D64	BL 74LVT273DB 8XD-FF 3.3V OCTAL D FLIP-FLOP	1100.4284.00	PHILIPS_SE	(74)LVT273(DB)	
D65	BL 74LVT573DB 8XD-LATCH 3.3V OCTAL D-TYPE LATCH	0048.4070.00	PHILIPS_SE	(74)LVT573(DB)	
D66	BL 74LVT573DB 8XD-LATCH 3.3V OCTAL D-TYPE LATCH	0048.4070.00	PHILIPS_SE	(74)LVT573(DB)	
D67	BL 74LVC14DB 6XINV.SCHM INV.SCHMITT-TRIGGER	1104.2570.00	PHILIPS_SE	74LVC14(A)(DB)	
D79	BL 74LVC14DB 6XINV.SCHM INV.SCHMITT-TRIGGER	1104.2570.00	PHILIPS_SE	74LVC14(A)(DB)	
D80	BL 74LVC14DB 6XINV.SCHM INV.SCHMITT-TRIGGER	1104.2570.00	PHILIPS_SE	74LVC14(A)(DB)	
D81	BL 74LVC74DB 2XD-FF IC DUAL D-TYPE FLIP FLOP	1104.2563.00	PHILIPS_SE	74LVC74(DB)	
D82	BL 74LVT08DB 4X2AND 3.3V QUAD 2-IN AND GATE	0048.3180.00	PHILIPS_SE	74LVT08(DB)	
D83	BL 74LVC14DB 6XINV.SCHM INV.SCHMITT-TRIGGER	1104.2570.00	PHILIPS_SE	74LVC14(A)(DB)	
D84	BL 74LVC74DB 2XD-FF IC DUAL D-TYPE FLIP FLOP	1104.2563.00	PHILIPS_SE	74LVC74(DB)	
D85	BL 74LVT08DB 4X2AND 3.3V QUAD 2-IN AND GATE	0048.3180.00	PHILIPS_SE	74LVT08(DB)	
D86	BL 74LVT32DB 4X2OR 3.3V QUAD 2-INPUT OR GATE	0048.3216.00	PHILIPS_SE	74LVT32DB	
D87	BL 74LVC74DB 2XD-FF IC DUAL D-TYPE FLIP FLOP	1104.2563.00	PHILIPS_SE	74LVC74(DB)	
D88	BL 74LVC74DB 2XD-FF IC DUAL D-TYPE FLIP FLOP	1104.2563.00	PHILIPS_SE	74LVC74(DB)	
D89	BL 74LVC14DB 6XINV.SCHM INV.SCHMITT-TRIGGER	1104.2570.00	PHILIPS_SE	74LVC14(A)(DB)	
D90 ..93	BL 74LVT273DB 8XD-FF 3.3V OCTAL D FLIP-FLOP	1100.4284.00	PHILIPS_SE	(74)LVT273(DB)	
D94	BG TH3092.1I PD DIV SMD IC GATE ARRAY	1088.8509.00	THESYS	TH3092.1I	
D95	BG TH3092.1I PD DIV SMD IC GATE ARRAY	1088.8509.00	THESYS	TH3092.1I	
D96	BL 74LVC86DB 4X2 EXOR EXOR GATE	1104.2586.00	PHILIPS_SE	74LVC86A(DB)	
D97	BL 74LVC86DB 4X2 EXOR EXOR GATE	1104.2586.00	PHILIPS_SE	74LVC86A(DB)	
D98 ..100	BL 74LVT08DB 4X2AND 3.3V QUAD 2-IN AND GATE	0048.3180.00	PHILIPS_SE	74LVT08(DB)	
D101	BL 74LVC74DB 2XD-FF IC DUAL D-TYPE FLIP FLOP	1104.2563.00	PHILIPS_SE	74LVC74(DB)	
D102 ..105	BL 74LVT32DB 4X2OR 3.3V QUAD 2-INPUT OR GATE	0048.3216.00	PHILIPS_SE	74LVT32DB	
D106	BL 74LVC74DB 2XD-FF IC DUAL D-TYPE FLIP FLOP	1104.2563.00	PHILIPS_SE	74LVC74(DB)	
D108	BC XC4005XL-3 5K GAT LCA IC LOGIK CELL ARRAY	1100.4561.00	XILINX	XC4005XL-3PQ208C	
D110	BS ADG719BRT 1XU ANALOGSW ANALOG CMOS SWITCH	2067.5488.00	ANALOG_DEV	ADG719BRT	
D111	BO MAX038CWP HIGH FREQ WAVEFORM GENERA	1066.1499.00	MAXIM	MAX038CWP	
D112	BS ADG719BRT 1XU ANALOGSW ANALOG CMOS SWITCH	2067.5488.00	ANALOG_DEV	ADG719BRT	
D113	BL 74LVC14DB 6XINV.SCHM INV.SCHMITT-TRIGGER	1104.2570.00	PHILIPS_SE	74LVC14(A)(DB)	
D114	BL 74LVT32DB 4X2OR 3.3V QUAD 2-INPUT OR GATE	0048.3216.00	PHILIPS_SE	74LVT32DB	
D115	BL 74LVT273DB 8XD-FF 3.3V OCTAL D FLIP-FLOP	1100.4284.00	PHILIPS_SE	(74)LVT273(DB)	
D116 ..118	BL 74CBT3384A 2X5SWITCH 10-BIT BUS SWITCH	1097.6457.00	TEXAS	SN74CBT3384A(DB)	
D119	BS ADG719BRT 1XU ANALOGSW ANALOG CMOS SWITCH	2067.5488.00	ANALOG_DEV	ADG719BRT	
D120	BL 74LVT244ADB 8XBUFF 3S 3.3V OCTAL BUFFER 3-STATE	0048.3251.00	PHILIPS_SE	(74)LVT244A(DB)	
D121	BL 74LVC86DB 4X2 EXOR EXOR GATE	1104.2586.00	PHILIPS_SE	74LVC86A(DB)	
D122	BL 74LVC244ADB 2X4 BUF/DR IC 74LVC244ADB	4052.5309.00	PHILIPS_SE	74LVC244A(DB)	
D123	BL 74LVT16374A 16XD-FF 3S 16BIT D-TYPE FLIP-FLOP	0048.4093.00	PHILIPS_SE	(74)LVT16374A(DL)	
D130	BL 74LVT244ADB 8XBUFF 3S 3.3V OCTAL BUFFER 3-STATE	0048.3251.00	PHILIPS_SE	(74)LVT244A(DB)	
D131	BL 74LVC86DB 4X2 EXOR EXOR GATE	1104.2586.00	PHILIPS_SE	74LVC86A(DB)	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
D132	BL 74LVC244ADB 2X4 BUF/DR IC 74LVC244ADB	4052.5309.00	PHILIPS_SE	74LVC244A(DB)	
D133	BL 74LVT16374A 16XD-FF 3S 16BIT D-TYPE FLIP-FLOP	0048.4093.00	PHILIPS_SE	(74)LVT16374A(DL)	
D140	BC XC4005XL-3 5K GAT LCA IC LOGIK CELL ARRAY	1100.4561.00	XILINX	XC4005XL-3PQ208C	
D141	BL 74LVC14DB 6XINV.SCHM INV.SCHMITT-TRIGGER	1104.2570.00	PHILIPS_SE	74LVC14(A)(DB)	
D142	BL 74LVT125DB 4XBUFF. 3S 3.3V QUAD BUFFER 3 STATE	0048.3239.00	PHILIPS_SE	74LVT125(DB)	
D149	BS DG411DY 4X ANALOGSCH ANALOG SWITCH	0920.1723.00	SILICONIX	DG411DY	
D150	BL 74LVT273DB 8XD-FF 3.3V OCTAL D FLIP-FLOP	1100.4284.00	PHILIPS_SE	(74)LVT273(DB)	
D151	BL 74LVT273DB 8XD-FF 3.3V OCTAL D FLIP-FLOP	1100.4284.00	PHILIPS_SE	(74)LVT273(DB)	
D152 ..159	BS DG408DY 8CH.ANAL.MUX IC 8 CH ANALOG MULTIPLEX	1036.4460.00	SILICONIX	DG408DY	
D160	BL 74LVC244ADB 2X4 BUF/DR IC 74LVC244ADB	4052.5309.00	PHILIPS_SE	74LVC244A(DB)	
D161	BL 74LVT273DB 8XD-FF 3.3V OCTAL D FLIP-FLOP	1100.4284.00	PHILIPS_SE	(74)LVT273(DB)	
D162	BS DG408DY 8CH.ANAL.MUX IC 8 CH ANALOG MULTIPLEX	1036.4460.00	SILICONIX	DG408DY	
D163	BS DG408DY 8CH.ANAL.MUX IC 8 CH ANALOG MULTIPLEX	1036.4460.00	SILICONIX	DG408DY	
D164	BJ DAC8800FS 8X8B-DAC D/A-CONVERTER	2035.6020.00	PMI	DAC8800F(S)	
D165	BS ADG719BRT 1XU ANALOGSW ANALOG CMOS SWITCH	2067.5488.00	ANALOG_DEV	ADG719BRT	
D170	BL 74LVC244ADB 2X4 BUF/DR IC 74LVC244ADB	4052.5309.00	PHILIPS_SE	74LVC244A(DB)	
D171	BS DG408DY 8CH.ANAL.MUX IC 8 CH ANALOG MULTIPLEX	1036.4460.00	SILICONIX	DG408DY	
D172	BS DG408DY 8CH.ANAL.MUX IC 8 CH ANALOG MULTIPLEX	1036.4460.00	SILICONIX	DG408DY	
D175	BS ADG719BRT 1XU ANALOGSW ANALOG CMOS SWITCH	2067.5488.00	ANALOG_DEV	ADG719BRT	
G1	EO 66,000MHZ QUARZOSZ QUARTZ CRYSTAL UNIT	1097.6234.00	SEIKO	SG-615PH-C 66,000MHZ	
H50	AF LYS269BO GELB LED LED YELLOW	0009.8340.00	SIEMENS	LY S269-BO(-Q1568)	
H51	AF LYS269BO GELB LED LED YELLOW	0009.8340.00	SIEMENS	LY S269-BO(-Q1568)	
H120	AF LGS269BO GRUEN LED LED	0009.8362.00	SIEMENS	LG S269-BO (Q1570)	
H130	AF LGS269BO GRUEN LED LED	0009.8362.00	SIEMENS	LG S269-BO (Q1570)	
H160	AF LSS269BO SUPERROT LED LED	0009.8356.00	SIEMENS	LS S269-BO(-Q1566)	
H170	AF LSS269BO SUPERROT LED LED	0009.8356.00	SIEMENS	LS S269-BO(-Q1566)	
L1 ..7	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L8	LD 1UH 1% 2R8 0.32A 1206 CERAMIC CHIP COIL	0048.5190.00	COILCRAFT	1206CS-102XFBC	
L9 ..21	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L22	LD 82 NH+-10% 0,3A 0805 SMD-MULTILAYER INDUCTOR	LD 0009.6853.00	TOKO	LL2012-F82NK	
L23 ..30	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L31	LD 100UH 10% 0,06A 1210 SMD-INDUCTOR	LD 0007.9261.00	SIEMENS	B82422-A1104-J(K)100	
L32	LD 100UH 10% 0,06A 1210 SMD-INDUCTOR	LD 0007.9261.00	SIEMENS	B82422-A1104-J(K)100	
L33 ..36	LD 10UH 10% 0,18A 1210 SMD-INDUCTOR	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L37	LD 10UH 10% 690MA 2220 SMD-INDUCTOR	1106.8252.00	SIEMENS	B82442A1103K	
L38	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L39 ..44	LD 10UH 10% 0,18A 1210 SMD-INDUCTOR	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
L45	LD 1UH 10% 0,38A 1210	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
..50	SMD-INDUCTOR				
L51	LD 10UH 10% 0,18A 1210	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
	SMD-INDUCTOR				
L52	LD 1UH 10% 0,38A 1210	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
	SMD-INDUCTOR				
L53	LD 1UH 10% 0,38A 1210	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
	SMD-INDUCTOR				
L54	LD 8,2UH 10% 0,22A 1206	4038.6830.00	STETTNER	5503 8222400	
..57	CHIP COIL				
L58	LD 47NH 2%OR13 1A 1206	0048.4570.00	COILCRAFT	1206CS-470XGBC	
	CERAMIC CHIP COIL				
L59	LD 82NH 1%OR21 0.9A 1206	0048.4606.00	COILCRAFT	1206CS-820XFBC	
	CERAMIC CHIP COIL				
N30	BO TLO72ACD 2XFET OPAMP	0803.1057.00	TEXAS	TL O72 ACDR	
	OPERATIONAL AMPLIFIER				
N40	BO OP400GS 4XLP OPAMP	1002.5135.00	PMI	OP400G(S)	
	QUAD LOW-OFFSET OPAMP				
N80	BO TLO72ACD 2XFET OPAMP	0803.1057.00	TEXAS	TL O72 ACDR	
	OPERATIONAL AMPLIFIER				
N110	BO LP2951CMLOWDROP +VREGL	1020.0890.00	NSC	LP2951CM	
	IC VOLTAGE REGULATOR				
N111	BO AD825 AR FET OPAMP	1100.2023.00	ANALOG_DEV	AD825AR	
	IC FET OPAMP				
N112	BO LM224D 4XLP OPAMP	0007.7852.00	SIGNETICS	LM224D	
	OPERATIONAL AMPLIFIER				
N120	BO TLO72ACD 2XFET OPAMP	0803.1057.00	TEXAS	TL O72 ACDR	
	OPERATIONAL AMPLIFIER				
N152	BO AD744KR FET OPAMP	0854.1754.00	ANALOG_DEV	(AD)744KR	
	BIFET OPAMP				
N153	BO AD744KR FET OPAMP	0854.1754.00	ANALOG_DEV	(AD)744KR	
	BIFET OPAMP				
N156	BO AD744KR FET OPAMP	0854.1754.00	ANALOG_DEV	(AD)744KR	
	BIFET OPAMP				
N157	BO AD744KR FET OPAMP	0854.1754.00	ANALOG_DEV	(AD)744KR	
	BIFET OPAMP				
N160	BO OP297GS 2X PREC OPAMP	6071.9467.00	ANALOG_DEV	OP297GS	
..162	IC DUALOPAMP				
N164	BO AD825 AR FET OPAMP	1100.2023.00	ANALOG_DEV	AD825AR	
	IC FET OPAMP				
N170	BO TLO72ACD 2XFET OPAMP	0803.1057.00	TEXAS	TL O72 ACDR	
	OPERATIONAL AMPLIFIER				
N174	BO AD825 AR FET OPAMP	1100.2023.00	ANALOG_DEV	AD825AR	
	IC FET OPAMP				
R1	RG 10K +-1% TK200 0603	RG 0009.5357.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603				
R2	RG 47R +-1% TK200 0603	0009.6924.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603				
R3	RG 10K +-1% TK200 0603	RG 0009.5357.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603				
R4	RG 10K +-1% TK200 0603	RG 0009.5357.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603				
R5	RG 1KO +-1% TK200 0603	RG 0009.5340.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603				
R6	RG 1KO +-1% TK200 0603	RG 0009.5340.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603				
R7	RG 10K +-1% TK200 0603	RG 0009.5357.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603				
R8	RG 47R +-1% TK200 0603	0009.6924.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603				
R9	RG 1KO +-1% TK200 0603	RG 0009.5340.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603				
R10	RG 47R +-1% TK200 0603	0009.6924.00	DRALORIC	CR 0603	
..13	SMD-RESISTOR EIA0603				
R14	RG 1KO +-1% TK200 0603	RG 0009.5340.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603				
R15	RG 1KO +-1% TK200 0603	RG 0009.5340.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603				
R16	RG 10K +-1% TK200 0603	RG 0009.5357.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603				
R17	RG 1KO +-1% TK200 0603	RG 0009.5340.00	DRALORIC	CR 0603	
..24	SMD-RESISTOR EIA0603				
R25	RG 13K +-1% TK200 0603	1097.6428.00	DRALORIC	CR 0603	
	SMD RESISTOR				
R26	RG 22R +-1% TK200 0603	0009.6901.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603				

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R27	RG 47K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7072.00	DRALORIC	CR 0603	
R28 ..30	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R31	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R32	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R33	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R34	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R35	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R36	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R37	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R38 ..44	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R45	RG 33R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6918.00	DRALORIC	CR 0603	
R46	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R47	RG 33R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6918.00	DRALORIC	CR 0603	
R48	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R49	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R50	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R51	RG 560R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.9630.00	DRALORIC	CR 0603	
R52	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R53	RG 470K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7120.00	DRALORIC	CR 0603	
R54	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R55	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R56	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R57	RG 470R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R58	RG 51,0 OHM+-1%TK200 0603 SMD-RESISTOR EIA0603	0009.9030.00	DRALORIC	CR 0603	
R59	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R60	RG 33K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7066.00	DRALORIC	CR 0603	
R61	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R62	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R63 ..69	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R70	RG 750R +-1% TK200 0603 SMD RESISTOR	1097.6492.00	DRALORIC	CR 0603	
R71	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R72	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R73	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R74	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R75 ..77	RG 47K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7072.00	DRALORIC	CR 0603	
R78	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R79	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R80	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R81	RG 1OR +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5328.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R82	RG 10R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5328.00	DRALORIC	CR 0603	
R83	RG 330R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6960.00	DRALORIC	CR 0603	
R84	RG 47R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6924.00	DRALORIC	CR 0603	
R85 ..89	RG 0-OHM WIDERSTAND 0-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R90	RG 1,0MOHM+-0,1%TK25 SMD-RESISTOR EIA1206	1206	0009.8179.00	MIKRO-TEK-	CMF 1206	
R91	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R92	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R93 ..95	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R96	RG 470R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R97	RG 47R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6924.00	DRALORIC	CR 0603	
R98	RG 47R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6924.00	DRALORIC	CR 0603	
R99 ..110	RG 47R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6924.00	DRALORIC	CR 0603	
R111 ..115	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R116	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R117	RG 47R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6924.00	DRALORIC	CR 0603	
R118	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R119 ..127	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R128	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R129 ..131	RG 2K2 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R132	RG 47R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6924.00	DRALORIC	CR 0603	
R133	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R134	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R135 ..137	RG 2K2 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R138	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R139	RG 47R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6924.00	DRALORIC	CR 0603	
R140	RG 47R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6924.00	DRALORIC	CR 0603	
R141	RG 49,9KOH+-0,1%TK25 SMD-RESISTOR EIA1206	1206	0010.0649.00	PHILIPS_CO	MPC 01	
R142	RG 2K2 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R143	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R144	RG 2K2 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R145	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R146 ..156	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R157	RG 10,0KOH+-0,1%TK25 SMD-RESISTOR	1206	0009.7666.00	PHILIPS_CO	MPC 01	
R158	RG 10,0KOH+-0,1%TK25 SMD-RESISTOR	1206	0009.7666.00	PHILIPS_CO	MPC 01	
R159	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R160	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R161	RG 10,0KOH+-0,1%TK25 SMD-RESISTOR	1206	0009.7666.00	PHILIPS_CO	MPC 01	
R162	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R163	RG 2K2 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R164	RG 10,0KOH+-0,1%TK25 SMD-RESISTOR	1206	0009.7666.00	PHILIPS_CO	MPC 01	
R165	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R166	RG 10R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5328.00	DRALORIC	CR 0603	
R167	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R168	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R169	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R170	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R171	RG 10R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5328.00	DRALORIC	CR 0603	
R172	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R173	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R174	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R175	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R176	RG 301 OHM+-1%TK200 SMD-RESISTOR EIA0603	0603	0009.9123.00	DRALORIC	CR 0603	
R176 ..177	RG 1MO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5370.00	DRALORIC	CR 0603	F
R178	RG 47R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6924.00	DRALORIC	CR 0603	
R179	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R180	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R181	RG 2K2 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R182	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R183	RG 2K2 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R184	RG 2K2 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R185	RG 2K2 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R186	RG 2K2 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R187	RG 2K2 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R188	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R189 ..191	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R192	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R193	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R194	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R195	RG 2K2 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R196	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R197	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R198	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R199	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R200	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R201 ..204	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R205	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R206	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R207	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R208	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R209	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R210	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R211	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R212	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R213	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R214	RG 10R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5328.00	DRALORIC	CR 0603	
R215	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R216	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R217	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R218 ..228	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R229	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R230 ..232	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R233	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R234	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R235 ..238	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R239	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R240 ..243	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R244	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R245	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R246	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R247	RG 33R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6918.00	DRALORIC	CR 0603	
R248	RG 33R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6918.00	DRALORIC	CR 0603	
R249	RG 2K2 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7008.00	DRALORIC	CR 0603	
R250	RG 2K2 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7008.00	DRALORIC	CR 0603	
R251 ..253	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R254 ..269	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R270	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R271	RG 33R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6918.00	DRALORIC	CR 0603	
R272 ..283	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R284	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R285	RG 33R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6918.00	DRALORIC	CR 0603	
R286	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R287 ..298	RG 301 OHM+-1%TK200 0603 SMD-RESISTOR EIA0603	0009.9123.00	DRALORIC	CR 0603	
R299	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R300	RG 200R +-1% TK200 0603 SMD RESISTOR	1097.6386.00	DRALORIC	CR 0603	
R301 ..312	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R313	RG 13K +-1% TK200 0603 SMD RESISTOR	1097.6428.00	DRALORIC	CR 0603	
R314	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R315	RG 0-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R316 ..319	RG 0-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R320 ..322	RG 10R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5328.00	DRALORIC	CR 0603	
R323	RG 47K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7072.00	DRALORIC	CR 0603	
R324 ..327	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R328	RG 330K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7114.00	DRALORIC	CR 0603	
R329	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R330	RG 47K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7072.00	DRALORIC	CR 0603	
R331	RG 330K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7114.00	DRALORIC	CR 0603	
R332 ..354	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R355	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R356 ..365	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R366	RG 470R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R367 ..402	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R403	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R404	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R405 ..433	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R434 ..438	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R439	RG 16,2K +-1% TK200 0603 RESISTOR	1093.6130.00	DRALORIC	CR 0603	
R440	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R441	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R442	RG 1MO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5370.00	DRALORIC	CR 0603	
R443	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R444	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R445 ..448	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R449	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R450	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R451	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R452	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R453	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R454	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R455	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R456	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R457	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R458	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R459 ..466	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R467	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R468	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R469 ..580	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R581	RG 47R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6924.00	DRALORIC	CR 0603	
R582 ..588	RG 47R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6924.00	DRALORIC	CR 0603	
R589	RG 470R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R590 ..600	RG 47R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6924.00	DRALORIC	CR 0603	
R601	RG 470R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R602 ..610	RG 47R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6924.00	DRALORIC	CR 0603	
R611	RG 47R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6924.00	DRALORIC	CR 0603	
R612 ..666	RG 47R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6924.00	DRALORIC	CR 0603	
R667	RG 47R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6924.00	DRALORIC	CR 0603	
R668 ..676	RG 47R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6924.00	DRALORIC	CR 0603	
R677	RG 47R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6924.00	DRALORIC	CR 0603	
R678 ..684	RG 47R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6924.00	DRALORIC	CR 0603	
R685 ..700	RG 10R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5328.00	DRALORIC	CR 0603	
R701	RG 470R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R702 ..715	RG 100R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5334.00	DRALORIC	CR 0603	
R720	RG 1MO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5370.00	DRALORIC	CR 0603	
R721	RG 330R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6960.00	DRALORIC	CR 0603	
R722	RG 330R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6960.00	DRALORIC	CR 0603	
R723 ..727	RG 150R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6947.00	DRALORIC	CR 0603	
R728	RG 2K2 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R729	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R730	RG 2K2 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R731	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R732	RG 2K2 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R733	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R734	RG 100R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5334.00	DRALORIC	CR 0603	
R735	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R736	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R737	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R738	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R739	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R740	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R741	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R742	RG 470R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R743	RG 470R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R744	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R745	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R746	RG 470R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R747	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R748	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R749	RG 5K62 +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8433.00	DRALORIC	CR 0603	
R750	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R751	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R752	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R753 ..759	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R760	RG 1R +-1% TK200 0603 SMD RESISTOR	0048.4187.00	DRALORIC	CR 0603	
R761 ..763	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R764	RG 422KOHM+-0,1%TK25 1206 RESISTOR	0010.2958.00	MIKRO-TEK-	CMF 1206	
R765	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R766	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R767	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R768	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R769	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R770	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R771 ..791	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R792	RG 12K1 +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8462.00	DRALORIC	CR 0603	
R793	RG 121K +-1% TK200 0603 SMD RESISTOR	1097.6340.00	DRALORIC	CR 0603	
R794	RG 3KO1+-1% TK200 0603 SMD-RESISTOR EIA0603	0010.9298.00	DRALORIC	CR 0603	
R795 ..797	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R798	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R799 ..810	RG 33R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6918.00	DRALORIC	CR 0603	
R811 ..817	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R818	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R819	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R820	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R821	RG 33R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6918.00	DRALORIC	CR 0603	
R822	RG 33R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6918.00	DRALORIC	CR 0603	
R823	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R824	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R825	RG 47K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7072.00	DRALORIC	CR 0603	
R826	RG 47K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7072.00	DRALORIC	CR 0603	
R827	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R828	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R829	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R830	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R831	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R832	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R833	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R834	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R835	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R836	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R837	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R838	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R839	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R840	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R841	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R842	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R843	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R844	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R845 ..847	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R848	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R849	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R850	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R851	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R852	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R853 ..855	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R856 ..859	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R860	RG 1R +-1% TK200 0603 SMD RESISTOR	0048.4187.00	DRALORIC	CR 0603	
R861	RG 1R +-1% TK200 0603 SMD RESISTOR	0048.4187.00	DRALORIC	CR 0603	
R862 ..867	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R868	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R869 ..876	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R877	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R878 ..881	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R882	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R883	RG 47OR +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R884 ..886	RG 1R +-1% TK200 0603 SMD RESISTOR	0048.4187.00	DRALORIC	CR 0603	
R887	RG 47K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7072.00	DRALORIC	CR 0603	
R888 ..890	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R891	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R892	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R893	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R894	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R895 ..898	RG 33R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6918.00	DRALORIC	CR 0603	
R899	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R900	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R901	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R902 ..904	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R905	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R906	RG 3K92 +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8427.00	DRALORIC	CR 0603	
R907 ..913	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R914	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R915	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R916	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R917 ..920	RG 1MO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5370.00	DRALORIC	CR 0603	
R921 ..924	RG 150R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6947.00	DRALORIC	CR 0603	
R925	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R926	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R927	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R928	RG 301 OHM+-1%TK200 0603 SMD-RESISTOR EIA0603	0009.9123.00	DRALORIC	CR 0603	
R929	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R930	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R931	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R932	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R933	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R934	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R935 ..937	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R938 ..941	RG 33R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6918.00	DRALORIC	CR 0603	
R942	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R943	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R944	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R945	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R946	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R947	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R948	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R949	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R950	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R951	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R952	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R953	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R954	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R955	RG 47K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7072.00	DRALORIC	CR 0603	
R956	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R957	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R958	RG 10R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5328.00	DRALORIC	CR 0603	
R959	RG 200K +-1% TK200 0603 SMD RESISTOR	1093.6200.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R960	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R961	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R962	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R963	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R964	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R965	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R966 ..969	RG 33R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6918.00	DRALORIC	CR 0603	
R970 ..973	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R974	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R975	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R976	RG 3K3 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7014.00	DRALORIC	CR 0603	
R977	RG 3K3 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7014.00	DRALORIC	CR 0603	
R978 ..981	RG 1R +-1% TK200 0603 SMD RESISTOR	0048.4187.00	DRALORIC	CR 0603	
R982	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R983	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R984	RG 10R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5328.00	DRALORIC	CR 0603	
R985	RG 10R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5328.00	DRALORIC	CR 0603	
R986	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R987	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R988	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R989	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R990 ..993	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R994	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R995	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R996	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R997	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R998	RG 470K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7120.00	DRALORIC	CR 0603	
R999	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
U1	BJ LM45C TEMP. SENSOR PRECISION TEMP. SENSOR	1081.1796.00	NSC	LM45CIM3	
V1	AM BF998 N-D DG MOSF DUAL GATE MOSFET	1051.4522.00	SIEMENS	BF998(-F1129)	
V2	AE HSMS2800 SCHOTTKY SCHOTTKY DIODE	AE 0836.8421.00	HEWLETT_PA	HSMS-2800(#L31)	
V3	AE HSMS2800 SCHOTTKY SCHOTTKY DIODE	AE 0836.8421.00	HEWLETT_PA	HSMS-2800(#L31)	
V4	AE HSMS2800 SCHOTTKY SCHOTTKY DIODE	AE 0836.8421.00	HEWLETT_PA	HSMS-2800(#L31)	
V5	AE HSMS2800 SCHOTTKY SCHOTTKY DIODE	AE 0836.8421.00	HEWLETT_PA	HSMS-2800(#L31)	
V6	AD BAS16 75V UDI HIGH-SPEED DIODE	AD 0007.4924.00	VALVO	BAS16 (A6P)	
V7	AE BZX284-B5V6 0,4W ZDI ZENER DIODE	0048.4129.00	PHILIPS_SE	BZX284-B5V6	
V8	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
V9	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
V10 ..13	AK BC817-40 N 45V 500MA NPN AF TRANSISTOR	1100.4684.00	SIEMENS	BC817-40 (-C1738)	
V14	AE BZX284-B3V3 0,4W ZDI ZENER DIODE	0048.3474.00	PHILIPS_SE	BZX284-B3V3	
V15	AE HSMS2800 SCHOTTKY SCHOTTKY DIODE	AE 0836.8421.00	HEWLETT_PA	HSMS-2800(#L31)	
V24	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V25	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
V27	AK BSR13 N 30V 800MA TRANSISTOR	AK 0007.2209.00	VALVO	BSR 13	
V28	AK BC817-40 N 45V 500MA NPN AF TRANSISTOR	1100.4684.00	SIEMENS	BC817-40 (-C1738)	
V29	AK BC817-40 N 45V 500MA NPN AF TRANSISTOR	1100.4684.00	SIEMENS	BC817-40 (-C1738)	
V30	AK BCX17 P 45V 500MA TRANSISTOR	AK 0007.2080.00	PHILIPS	BCX17	
V31	AK BCX17 P 45V 500MA TRANSISTOR	AK 0007.2080.00	PHILIPS	BCX17	
V32	AE BZX284-B5V1 0,4W ZDI ZENER DIODE	0048.3516.00	PHILIPS_SE	BZX284-B5V1	
X4	FP STIFTLEISTE 4P. SMD CONNECTOR	FP 1100.4390.00	SPEED_TECH	H761-8201 048	
X71	FP BUCHSENLEISTE 48P.WINK CONNECTOR	1093.6000.00	AMP	536511-2	
X72 ..75	FP BUCHSENLEISTE 96P.WINK CONNECTOR	1100.4361.00	AMP	536511-3	
X701 ..705	FJ EINLOETBUCHSE MMCX CONNECTOR	1085.1532.00	SUHNER	82MMCXS50-0-2/111KG	
X708	FJ EINLOETBUCHSE MMCX CONNECTOR	1085.1532.00	SUHNER	82MMCXS50-0-2/111KG	
X709	FJ EINLOETBUCHSE MMCX CONNECTOR	1085.1532.00	SUHNER	82MMCXS50-0-2/111KG	
X711 ..713	FP STIFTLEISTE 50P. SMD CONNECTOR	1100.4490.00	SPEED_TECH	H762-9708-506 UNGEGU	
X721	FP STIFTLEISTE 34P. SMD CONNECTOR	1100.4503.00	SPEED_TECH	H762-9708-346 UNGEGU	
X731 ..733	FP STIFTLEISTE 50P. SMD CONNECTOR	1100.4490.00	SPEED_TECH	H762-9708-506 UNGEGU	
X741	FP STIFTLEISTE 34P. SMD CONNECTOR	1100.4503.00	SPEED_TECH	H762-9708-346 UNGEGU	
X751	FP STIFTLEISTE 50P. SMD CONNECTOR	1100.4490.00	SPEED_TECH	H762-9708-506 UNGEGU	
X752	FP STIFTLEISTE 50P. SMD CONNECTOR	1100.4490.00	SPEED_TECH	H762-9708-506 UNGEGU	
X761	FP STIFTLEISTE 34P. SMD CONNECTOR	1100.4503.00	SPEED_TECH	H762-9708-346 UNGEGU	
X762	FP STIFTLEISTE 10P. SMD CONNECTOR	1100.3536.00	SPEED_TECH	H762-9708-106 UNGEGU	
X771	FP STIFTLEISTE 50P. SMD CONNECTOR	1100.4490.00	SPEED_TECH	H762-9708-506 UNGEGU	
X772	FP STIFTLEISTE 50P. SMD CONNECTOR	1100.4490.00	SPEED_TECH	H762-9708-506 UNGEGU	
X781	FP STIFTLEISTE 34P. SMD CONNECTOR	1100.4503.00	SPEED_TECH	H762-9708-346 UNGEGU	
X782	FP STIFTLEISTE 10P. SMD CONNECTOR	1100.3536.00	SPEED_TECH	H762-9708-106 UNGEGU	
Z42	LD PI-FILTER 10GHZ SMD SMD-FILTER	LD 0008.5901.00	OXLEY	SLT/P/22000/SM3	

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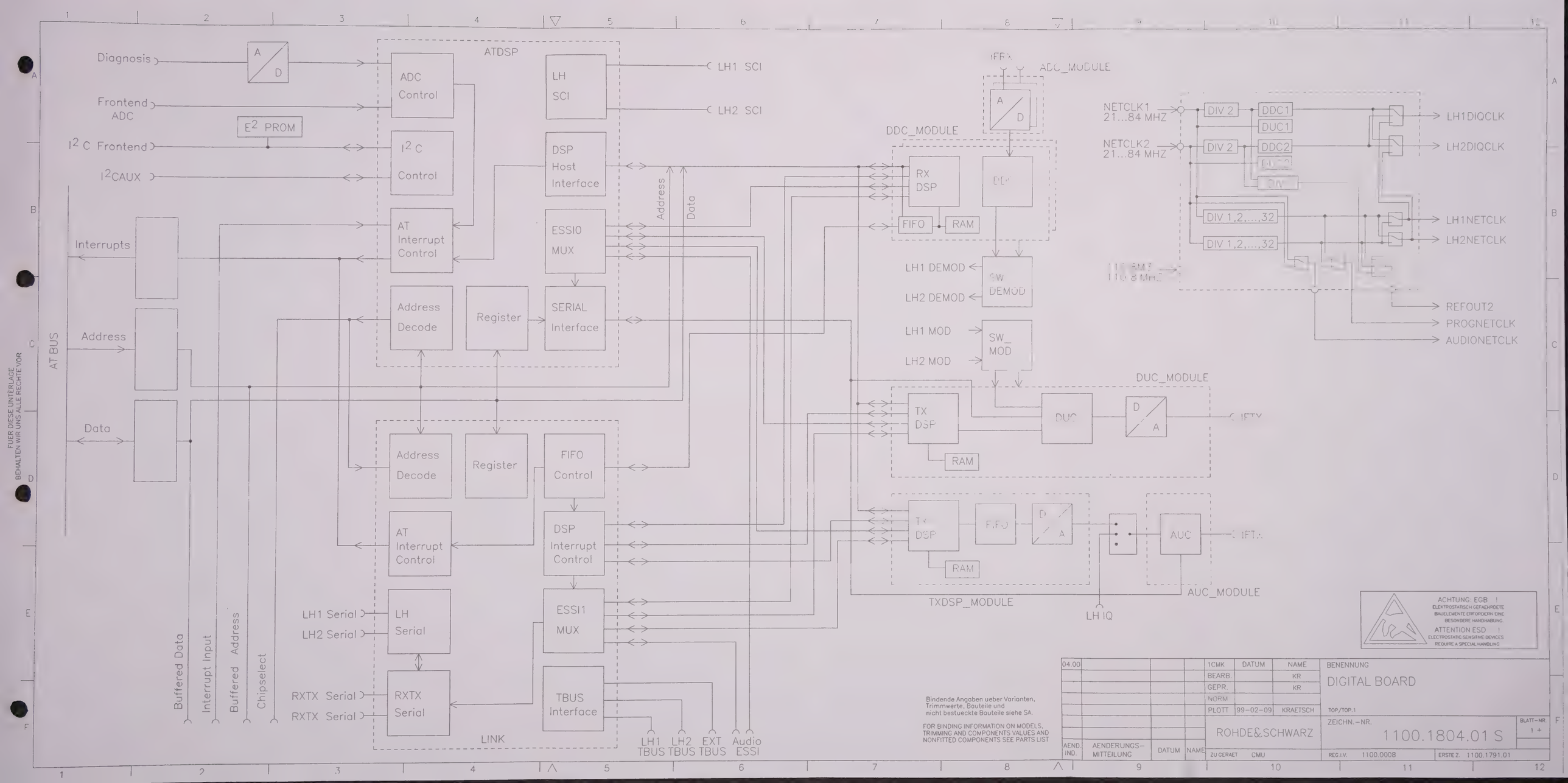


FUER DIESE UNTERLAGE BEHALTEN WIR UNS ALLE RECHTE VOR

Bindende Angaben ueber Varianten, Trimmwerte, Bauteile und nicht bestueckte Bauteile siehe SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
04.00			

	DATUM	NAME
1CMK		
BEARB.		KR
GEPR.		KR
NORM		
PLOTT	99-02-09	KRAETSCH

BENENNUNG: DIGITAL BOARD

TOP/TOP.1

ROHDE&SCHWARZ

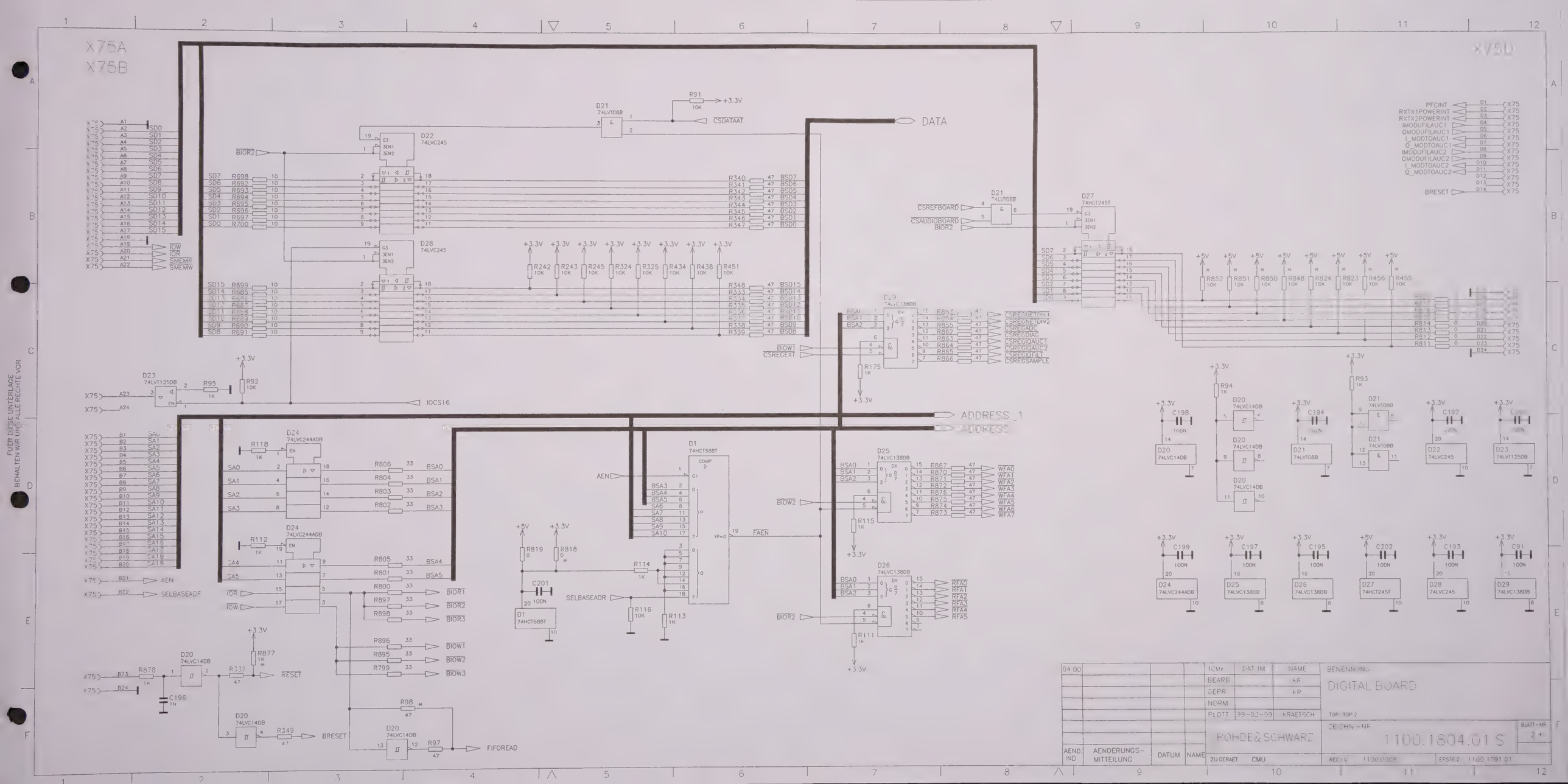
ZU GERAET CMU

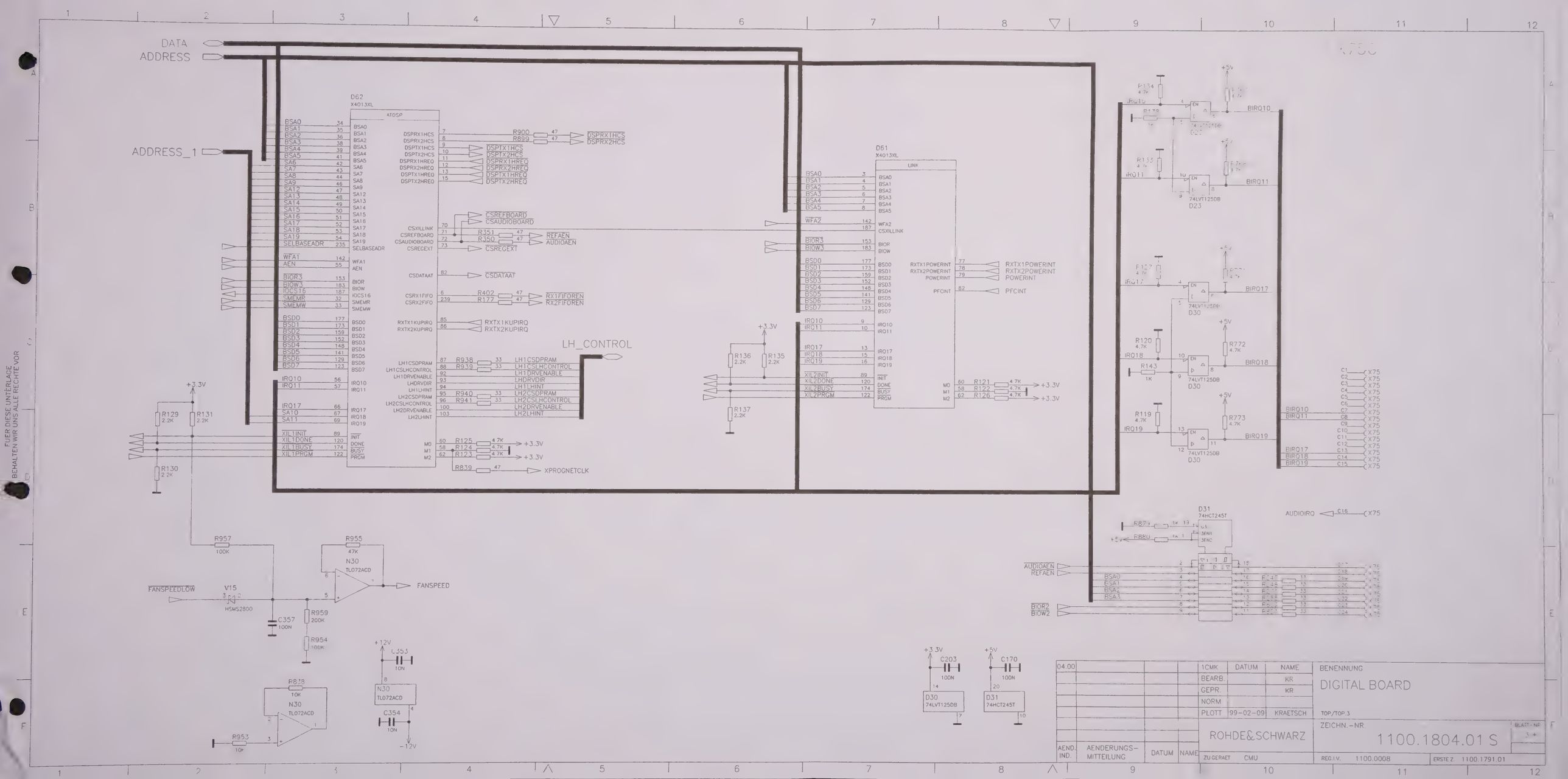
ZEICHN.-NR. 1100.1804.01 S

BLATT-NR. 1 +

REG.I.V. 1100.0008

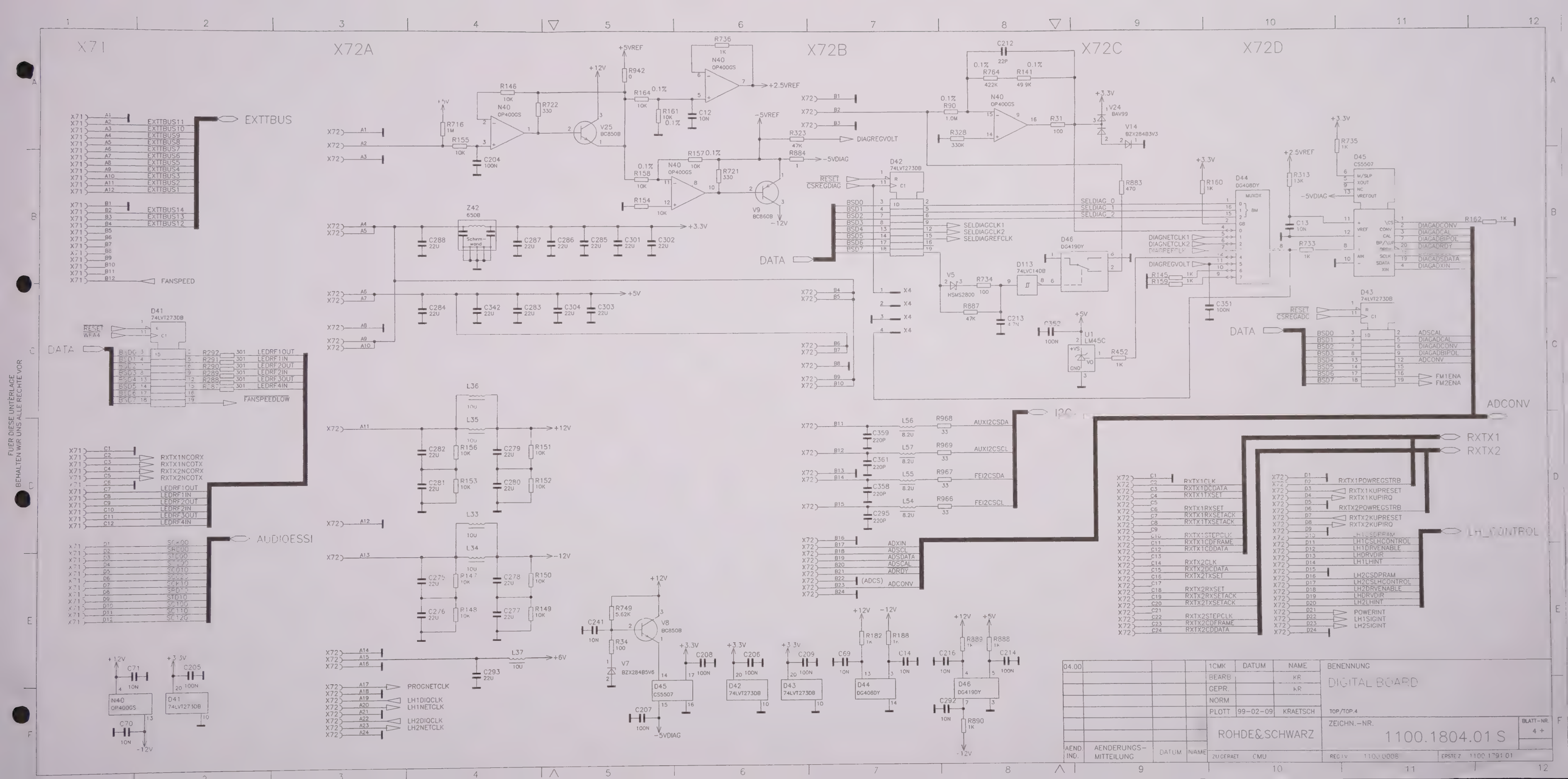
ERSTE Z. 1100.1791.01

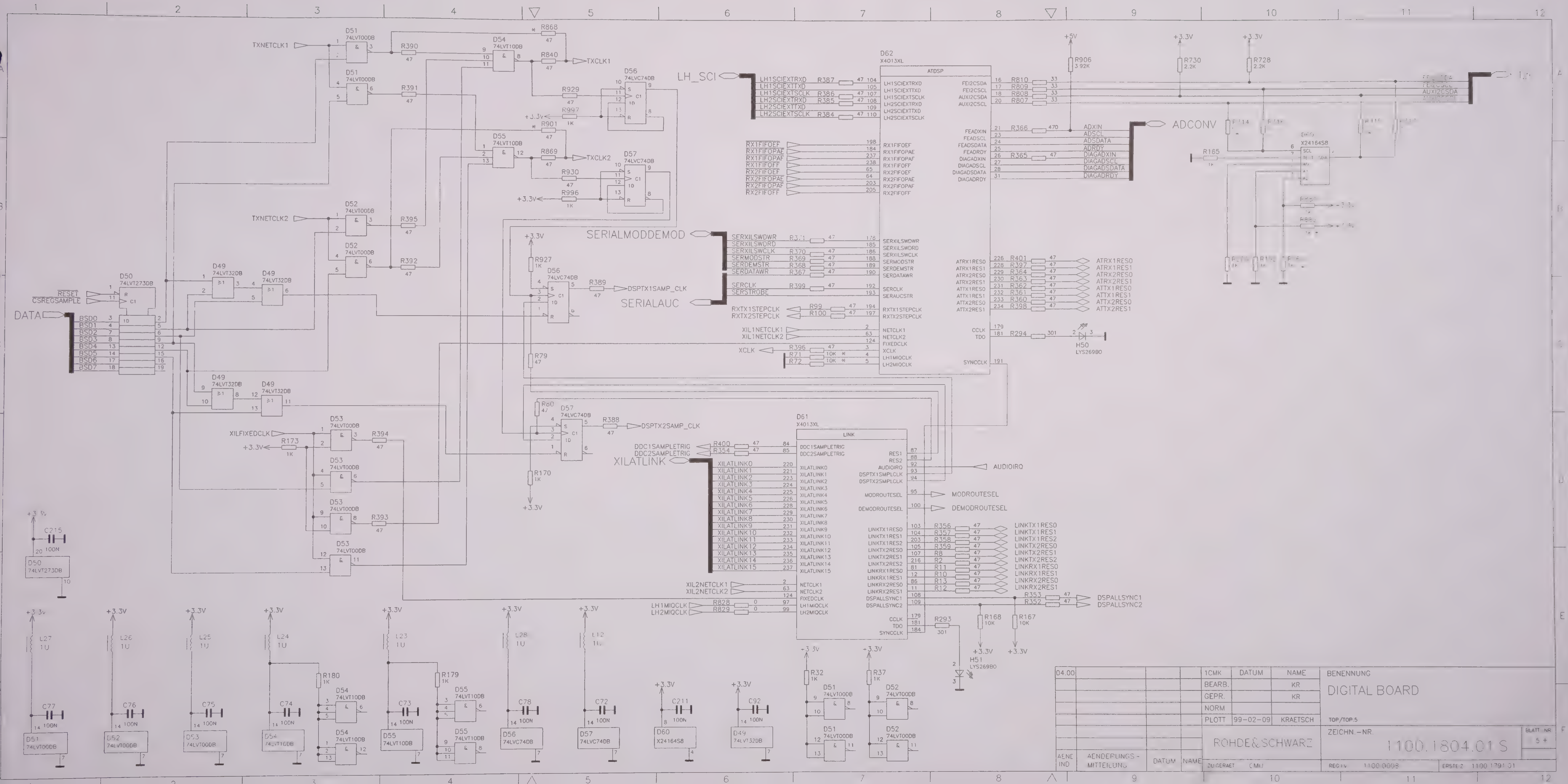

X75A
X75B
X75D
DATA
ADDRESS_1
ADDRESS
D21 74LVT08B
D22 74LVC245
D28 74LVC245
D27 74HCT245T
D23 74LVT125DB
D24 74LVC244ADB
D1 74HCT688T
D25 74LVC138DB
D26 74LVC138DB
D20 74LVC14DB
CSDATAAT
CSREFBOARD
CSAUDIOBOARD
BIOR2
IOCS16
AEN
SELBASEADR
RESET
BRESET
FIFOREAD
PFCINT
RXTX1POWERINT
RXTX2POWERINT
IMODUFILAUC1
QMODUFILAUC1
I_MODTOAUC1
Q_MODTOAUC1
IMODUFILAUC2
QMODUFILAUC2
I_MODTOAUC2
Q_MODTOAUC2
BRESET
FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR
04.00
TOMR
DATUM
NAME
BEARB
KR
GEPR
KR
NORM
PLOTT
99-02-09
KRAETSCH
BENENNUNG
DIGITAL BOARD
TOP TOP 2
ZEICHN.-NR
1100.1804.01 S
BLATT-NR
2 +
ROHDE&SCHWARZ
AEND. IND
AENDERUNGS-MITTEILUNG
DATUM
NAME
ZU GERAET CMU
REC.IV 1100.0008
ERSTE Z 1100.1791.01



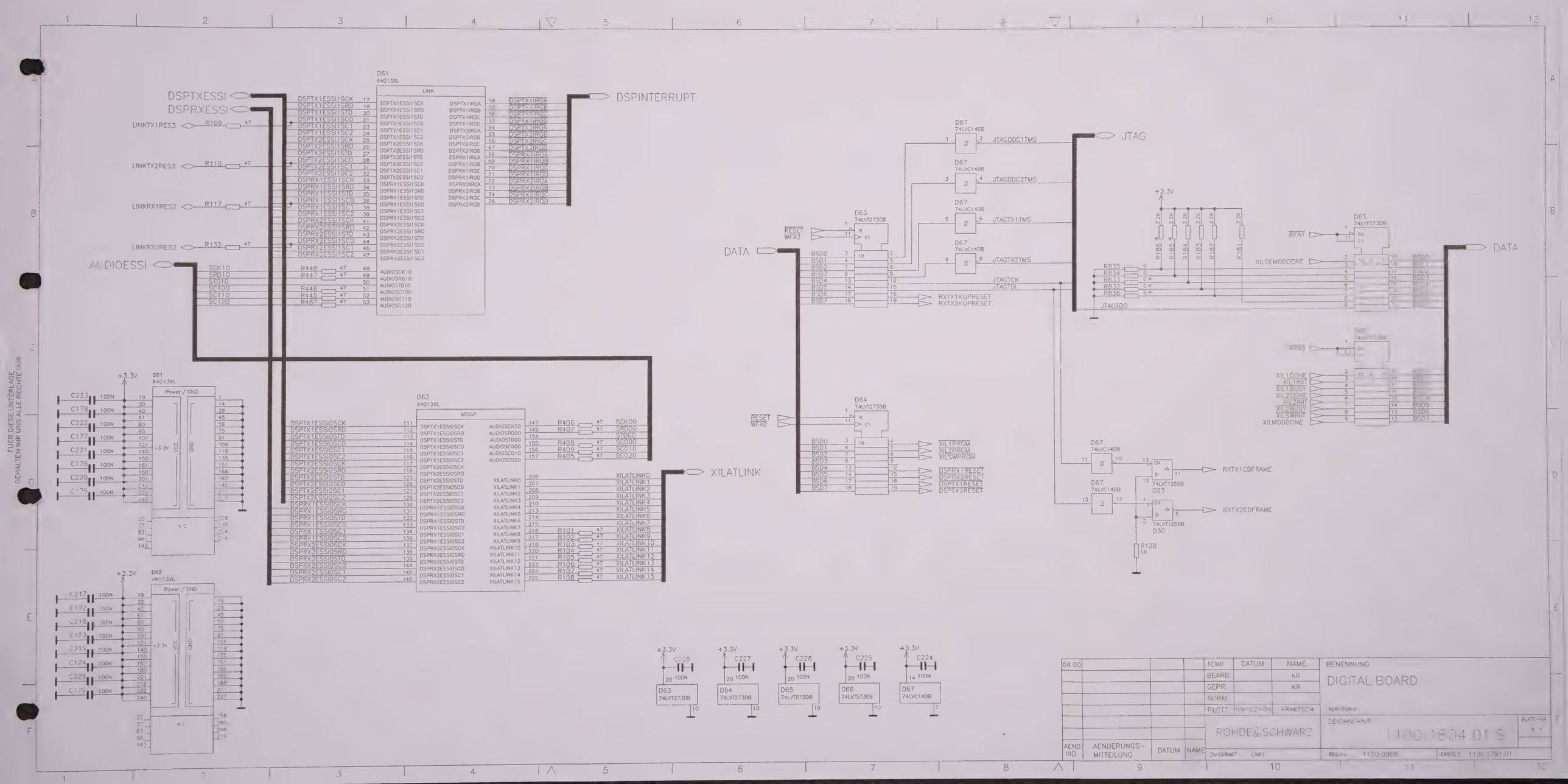
04.00				1CMK	DATUM	NAME	BENENNUNG
				BEARB.		KR	DIGITAL BOARD
				GEPR.		KR	
				NORM			TOP/TOP.3
				PLOTT	99-02-09	KRAETSCH	
				ROHDE&SCHWARZ			ZEICHN.-NR. 1100.1804.01 S
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET CMU			REG.I.V. 1100.0008 ERSTE Z. 1100.1791.01

BLATT-NR 3 +


X71
X72A
X72B
X72C
X72D
EXTTBUS
FANSPEED
DATA
FANSPEEDLOW
AUDIOESSI
PROGNETCLK
LH1DIQCLK
LH1NETCLK
LH2DIQCLK
LH2NETCLK
DIAGREGVOLT
SELDIAGCLK1
SELDIAGCLK2
SELDIAGREFCLK
ADCONV
RXTX1
RXTX2
LH_CONTROL
FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR
ROHDE&SCHWARZ
DIGITAL BOARD
1100.1804.01 S

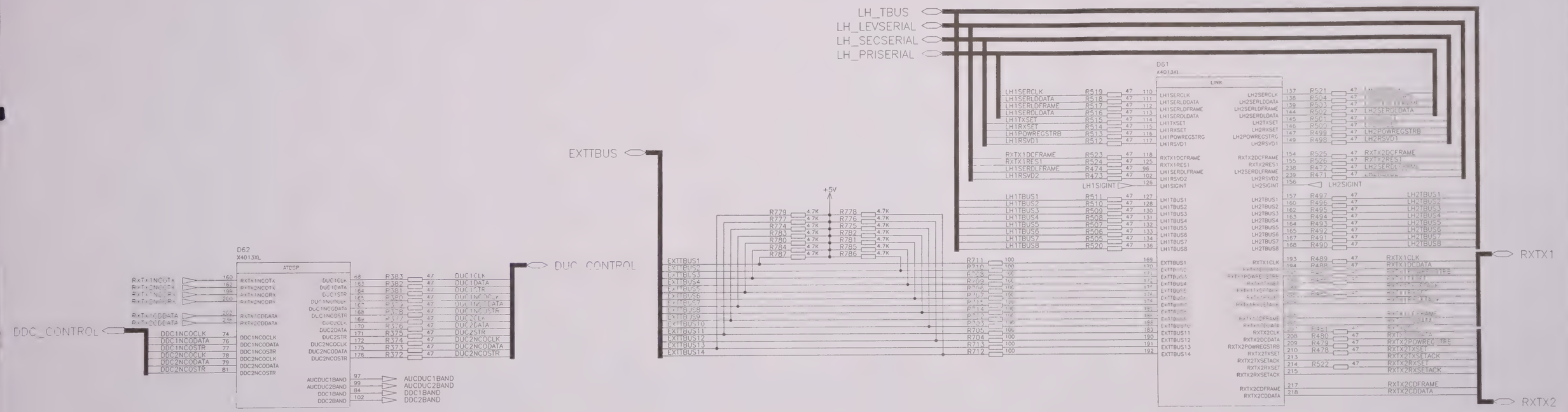


FUER DIESE UNTERLAGE BEHALTEN WIR UNS ALLE RECHTE VOR

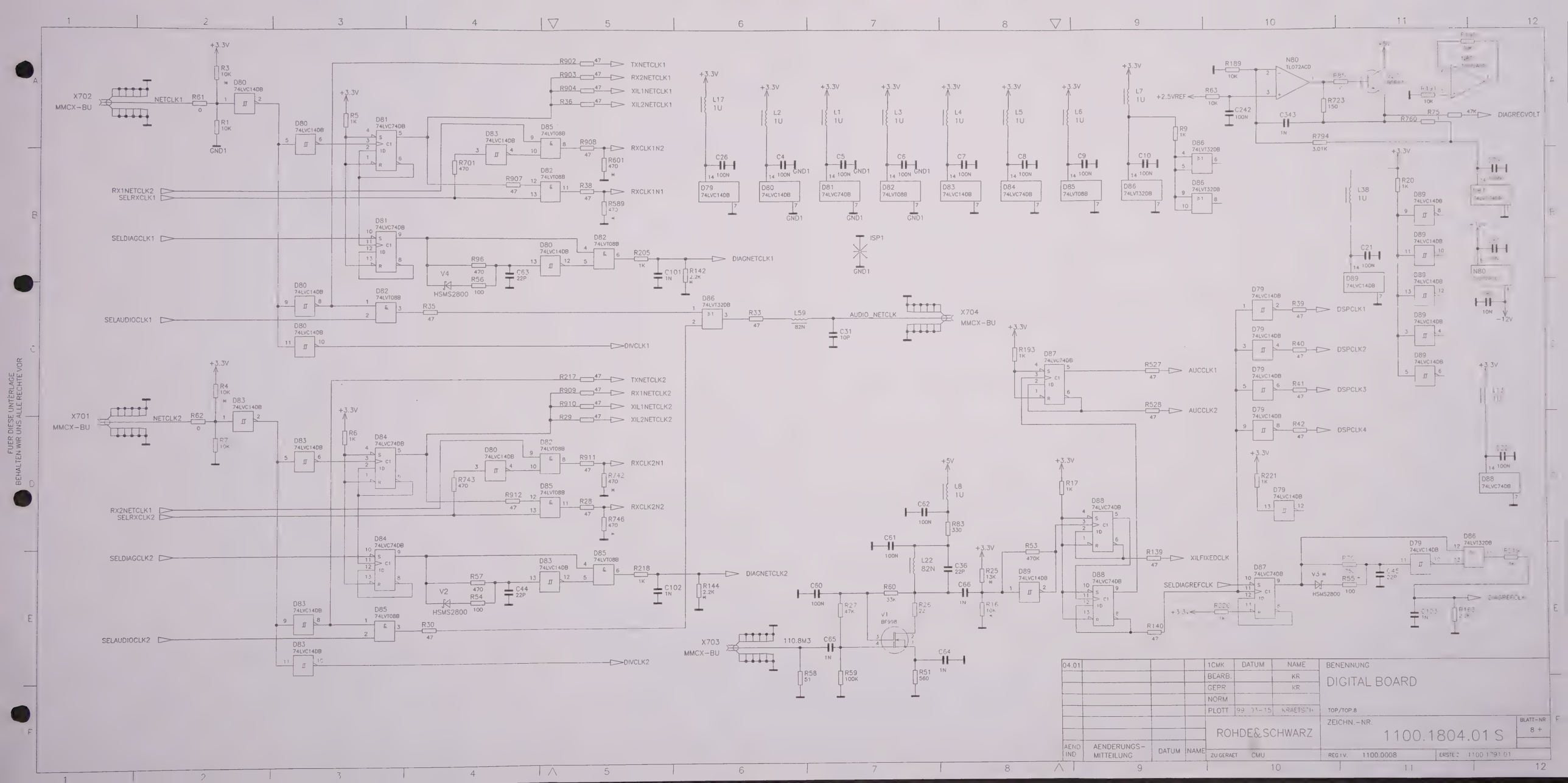


04.00				1CMK	DATUM	NAME	BENENNUNG
				BEARB.		KR	DIGITAL BOARD
				GEPR.		KR	
				NORM			
				PLOTT	09-02-09	KRAETSCH	TOP TOP<
				ROHDE&SCHWARZ			ZEICHN.-NR. 1100.1804.01 S
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZUGERAET CMU			BLATT-NR 6 +
				REGIN 1100.0008			ERSTELL 1100 1791 01

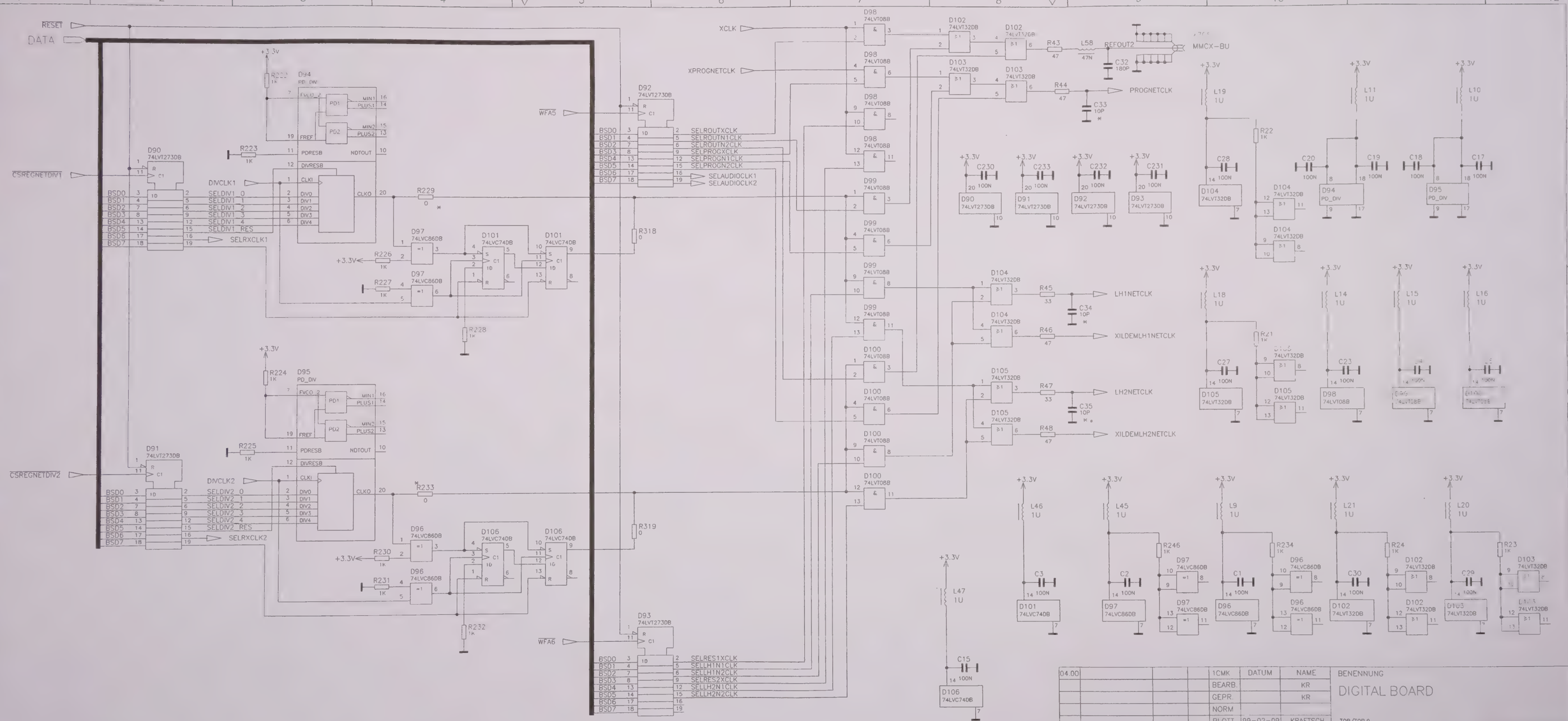
FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR



04.00				1CMK	DATUM	NAME	BENENNUNG	
				BEARB.		KR	DIGITAL BOARD	
				GEPR.		KR		
				NORM				
				PLOTT	99-02-09	KRAETSCH	TOP/TOP.7	
				ROHDE&SCHWARZ			ZEICHN.-NR. 1100.1804.01 S	BLATT-NR. 7 +
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET CMU			REG.I.V. 1100.0008	ERSTE Z. 1100.1791.01



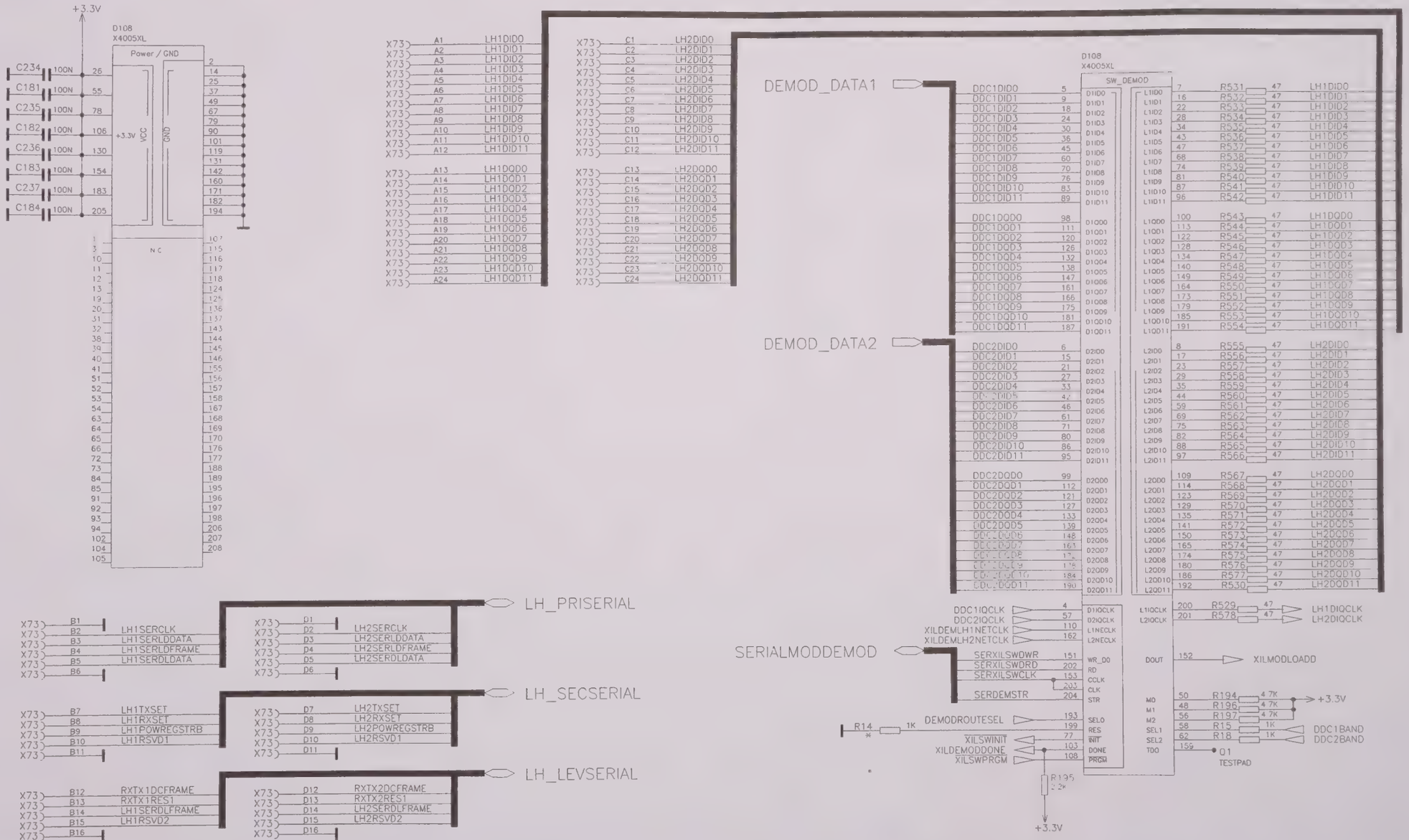
04.01				1CMK	DATUM	NAME	BENENNUNG	
				BEARB.		KR	DIGITAL BOARD	
				GEPR		KR		
				NORM				
				PLOTT	99.03.15	KRAETSCH	TOP/TOP.8	
				ROHDE&SCHWARZ			ZEICHN.-NR. 1100.1804.01 S	BLATT-NR 8 +
AEND IND	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET CMU			REG.IV. 1100.0008	ERSTELL 1100 1791 01



FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR

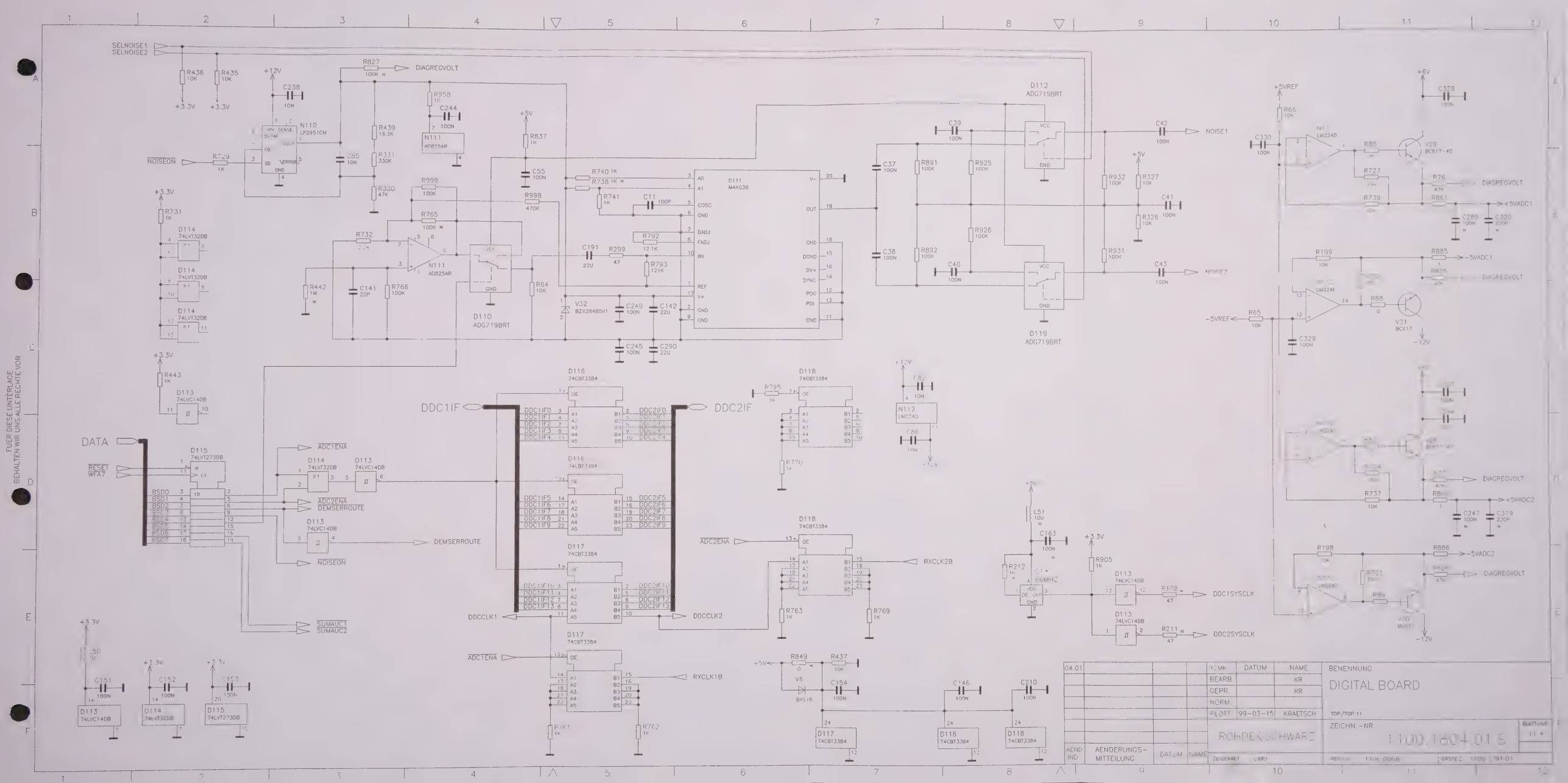
04.00				1CMK	DATUM	NAME	BENENNUNG	
				BEARB.		KR	DIGITAL BOARD	
				GEPR.		KR		
				NORM				
				PLOTT	99-02-09	KRAETSCH	TOP/TOP 9	
				ROHDE&SCHWARZ			ZEICHN.-NR. 1100.1804.01 S	BLATT-NR 9 +
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET CMU			REG.I.V. 1100.0008	ERSTE Z. 1100.1791.01

X73B X73D X73A X73C

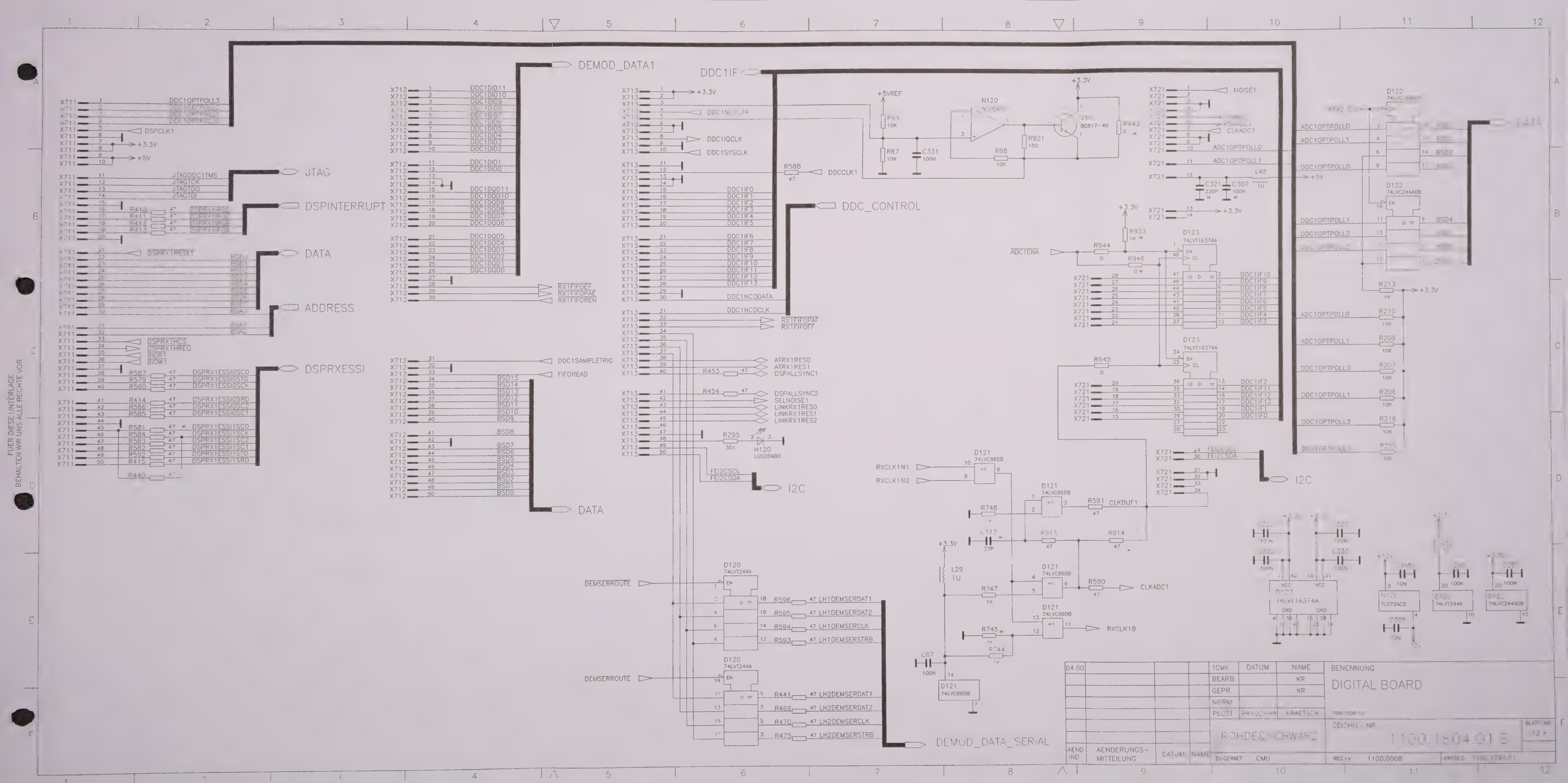


DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR

04.00				1CMK	DATUM	NAME	BENENNUNG
				BEARB.		KR	DIGITAL BOARD
				GEPR		KR	
				NORM			
				PLOTT	99-02-09	KRAETSCH	TOP/TOP.10
				ROHDE&SCHWARZ			ZEICHN.-NR. 1100.1804.01 S
							BLATT-NR. 10 +
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET CMU			REG.I.V. 1100.0008 ERSTE Z. 1100.1791.01



SELNOISE1
SELNOISE2
DIAGREGVOLT
NOISEON
NOISE1
NOISE2
DATA
RESET
WFA7
DDC1IF
DDC2IF
ADC1ENA
ADC2ENA
DEMSERROUTE
SUMAUC1
SUMAUC2
DDCCLK1
DDCCLK2
RXCLK1B
RXCLK2B
DDC1SYSCLK
DDC2SYSCLK
+5VREF
-5VREF
+5VADC1
-5VADC1
+5VADC2
-5VADC2
FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR
04.01
TOMK
DATUM
NAME
BEARB.
KR
GEPR.
KR
NORM
PLOTT
99-03-15
KRAETSCH
BENENNUNG
DIGITAL BOARD
TOP/TOP.11
ZEICHN.-NR
1100.1804.01 S
BLATT-NR
11 +
ROHDE&SCHWARZ
AEND IND
AENDERUNGS-MITTEILUNG
DATUM
NAME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DDC1IF
DDC_CONTROL
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DSPINTERRUPT
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DSPRXESSI
I2C
DEMSERROUTE
DEMOD_DATA_SERIAL
NOISE1
ADC1ENA
CLKADC1
RXCLK1B
CLKBUF1
DSPCLK1
+3.3V
+5V
+5VREF
DDCCLK1
DDC1NCOCLK
DDC1SYSCLK
DDC1IQCLK
DDC1SAMPLETRIG
FIFOREAD
RX1FIFOEF
RX1FIFOPAE
RX1FIFOREN
RX1FIFOPAF
RX1FIFOFF
ATRX1RES0
ATRX1RES1
DSPALLSYNC1
DSPALLSYNC2
SELNOISE1
LINKRX1RES0
LINKRX1RES1
LINKRX1RES2
FEI2CSCL
FEI2CSDA
RXCLK1N1
RXCLK1N2
DSPRX1RESET
DSPRX1HCS
DSPRX1HREQ
BIOR1
BIOW1
JTAGDDC1TMS
JTAGTCK
JTAGTDO
JTAGTDI
DDC1OPTPOLL0
DDC1OPTPOLL1
DDC1OPTPOLL2
DDC1OPTPOLL3
ADC1OPTPOLL0
ADC1OPTPOLL1
ADC1OPTPOLL2
ADC1OPTPOLL3
LH1DEMSERDAT1
LH1DEMSERDAT2
LH1DEMSERCLK
LH1DEMSERSTRB
LH2DEMSERDAT1
LH2DEMSERDAT2
LH2DEMSERCLK
LH2DEMSERSTRB
D120
74LVT244A
D121
74LVC86DB
D122
74LVC244ADB
D123
74LVT16374A
N120
TL072ACD
V10
BC817-40
L29
1U
L48
1U
C307
100N
C321
220P
C313
22P
C327
100N
C332
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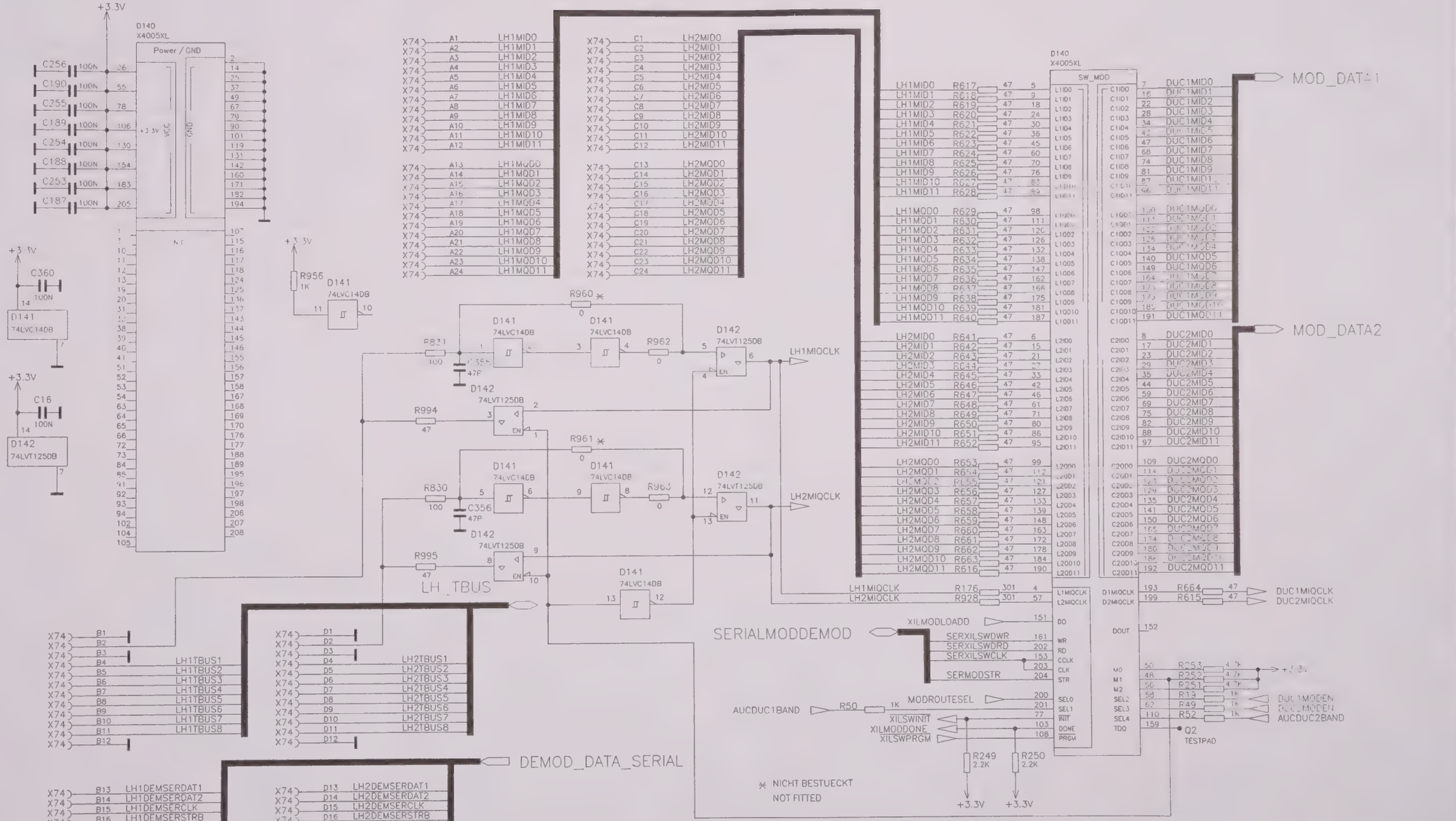
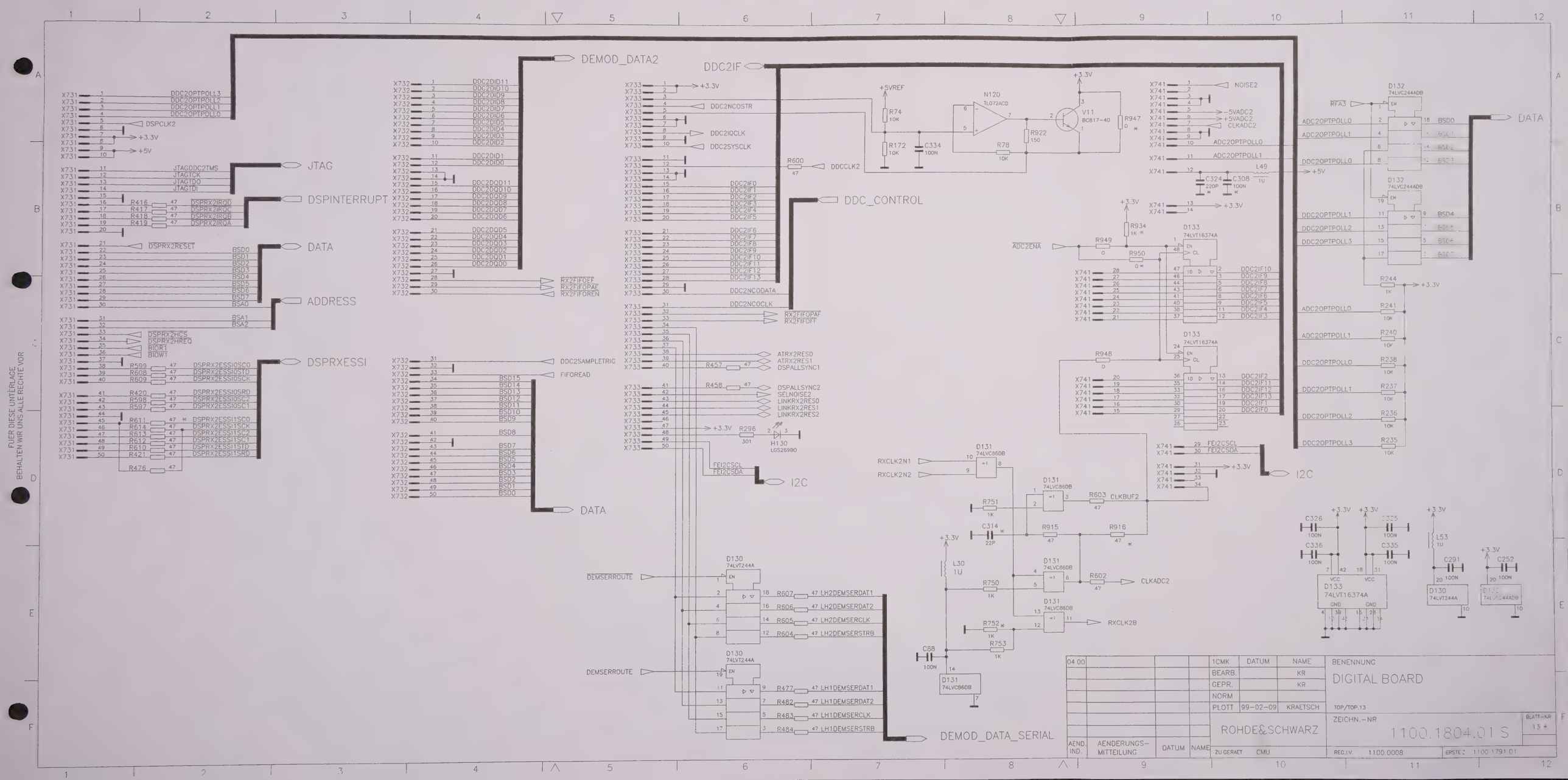
C353
100N
C354
100N
C355
100N
C356
100N

X74B X74D X74A X74C



04.00				ICMP	DATUM	NAME	BENENNUNG
				BEARB		KR	DIGITAL BOARD
				GEPR.		KR	
				NORM			TOP/TOP 14
				PLOTT	99-02-09	KRAETSCH	
AEND IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ROHDE&SCHWARZ			ZEICHN.-NR 1100.1804.01 S
				ZU GERAET CMU			BLATT-NR 14
				REGIV 1100 0008			ERSTELZ 1100 1791 01

BEHALTEN WIR UNS ALLE RECHTE VOR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DDC2OPTPOLL2
DDC2OPTPOLL1
DDC2OPTPOLL0
DSPCLK2
+3.3V
+5V
JTAGDDC2TMS
JTAGTCK
JTAGTDO
JTAGTDI
JTAG
DSPRX2IRQD
DSPRX2IRQC
DSPRX2IRQB
DSPRX2IRQA
DSPINTERRUPT
DSPRX2RESET
BSD0
BSD1
BSD2
BSD3
BSD4
BSD5
BSD6
BSD7
DATA
BSA0
BSA1
BSA2
ADDRESS
DSPRX2HCS
DSPRX2HREQ
BIOR1
BIOW1
DSPRX2ESSI0SC0
DSPRX2ESSI0STD
DSPRX2ESSI0SCK
DSPRX2ESSI0SRD
DSPRX2ESSI0SC2
DSPRX2ESSI0SC1
DSPRX2ESSI1SC0
DSPRX2ESSI1SCK
DSPRX2ESSI1SC2
DSPRX2ESSI1SC1
DSPRX2ESSI1STD
DSPRX2ESSI1SRD
DSPRXESSI
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DDC2DID11
DDC2DID10
DDC2DID9
DDC2DID8
DDC2DID7
DDC2DID6
DDC2DID5
DDC2DID4
DDC2DID3
DDC2DID2
DDC2DID1
DDC2DID0
DDC2DQD11
DDC2DQD10
DDC2DQD9
DDC2DQD8
DDC2DQD7
DDC2DQD6
DDC2DQD5
DDC2DQD4
DDC2DQD3
DDC2DQD2
DDC2DQD1
DDC2DQD0
RX2FIFOEF
RX2FIFOPAF
RX2FIFOREN
DDC2SAMPLETRIG
FIFOREAD
BSD15
BSD14
BSD13
BSD12
BSD11
BSD10
BSD9
BSD8
BSD7
BSD6
BSD5
BSD4
BSD3
BSD2
BSD1
BSD0
DATA
DDC2IF
+3.3V
DDC2NCOSTR
DDC2IQCLK
DDC2SYSCLK
DDC2IF0
DDC2IF1
DDC2IF2
DDC2IF3
DDC2IF4
DDC2IF5
DDC2IF6
DDC2IF7
DDC2IF8
DDC2IF9
DDC2IF10
DDC2IF11
DDC2IF12
DDC2IF13
DDC2NCODATA
DDC2NCOCLK
RX2FIFOPAF
RX2FIFOFF
ATRX2RES0
ATRX2RES1
DSPALLSYNC1
DSPALLSYNC2
SELNOISE2
LINKRX2RES0
LINKRX2RES1
LINKRX2RES2
+3.3V
R296
301
H130
LQS26980
FEI2CSCL
FEI2CSDA
I2C
DDC_CONTROL
+5VREF
R74
10K
R172
10K
C334
100N
N120
TL072ACD
V11
BC817-40
R947
0
R922
150
R78
10K
R600
47
DDCCLK2
NOISE2
-5VADC2
+5VADC2
CLKADC2
ADC2OPTPOLL0
ADC2OPTPOLL1
C324
220P
C308
100N
L49
1U
+3.3V
R934
1K
ADC2ENA
R949
0
R950
0
D133
74LVT16374A
DDC2IF10
DDC2IF9
DDC2IF8
DDC2IF7
DDC2IF6
DDC2IF5
DDC2IF4
DDC2IF3
R948
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DDC2IF11
DDC2IF12
DDC2IF13
DDC2IF1
DDC2IF0
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FEI2CSDA
I2C
D132
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BSD0
BSD1
BSD2
BSD3
BSD4
BSD5
BSD6
BSD7
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ADC2OPTPOLL1
DDC2OPTPOLL0
DDC2OPTPOLL1
DDC2OPTPOLL2
DDC2OPTPOLL3
+5V
R244
1K
R241
10K
R240
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R238
10K
R237
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R236
10K
R235
10K
D131
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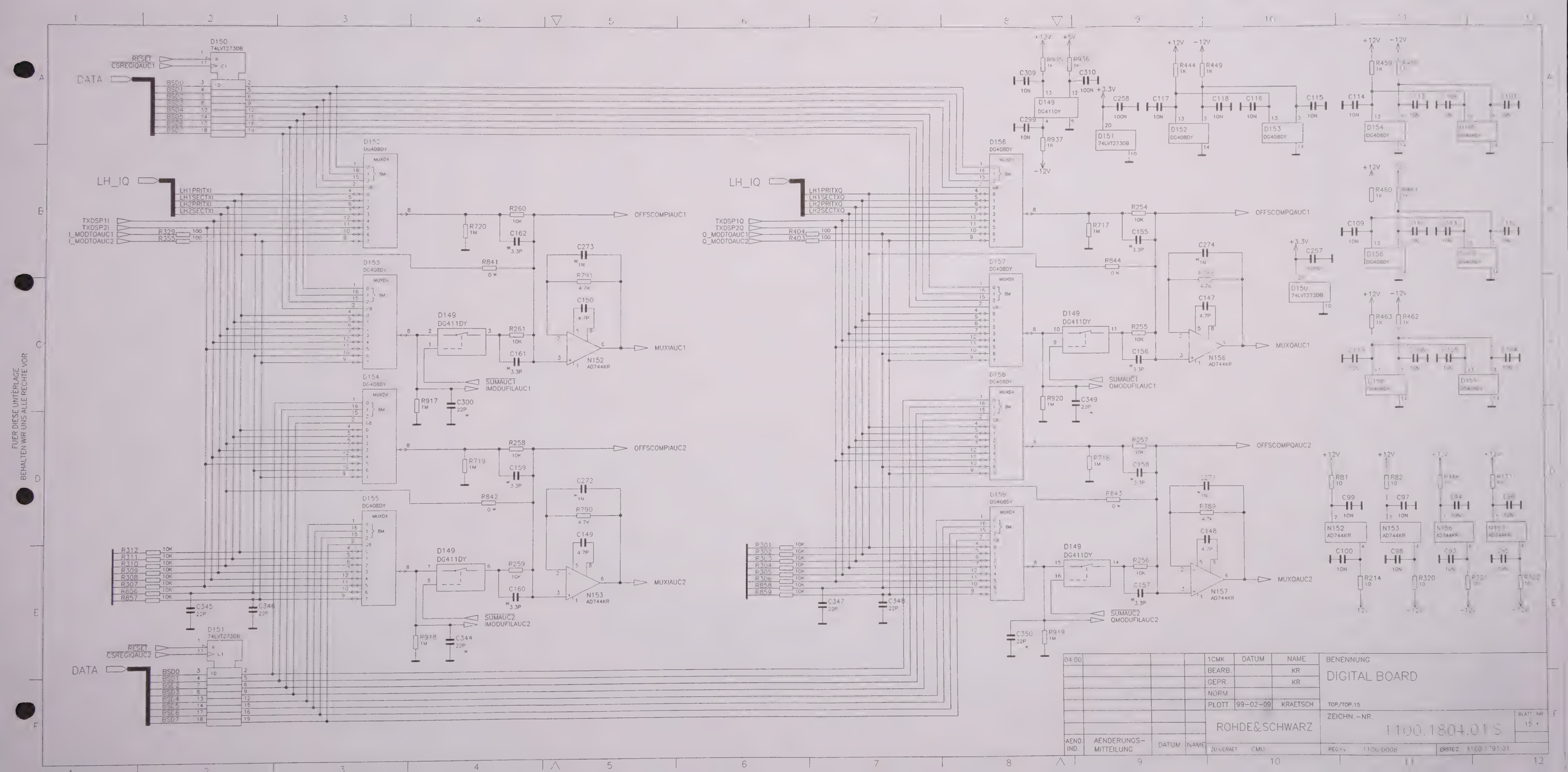
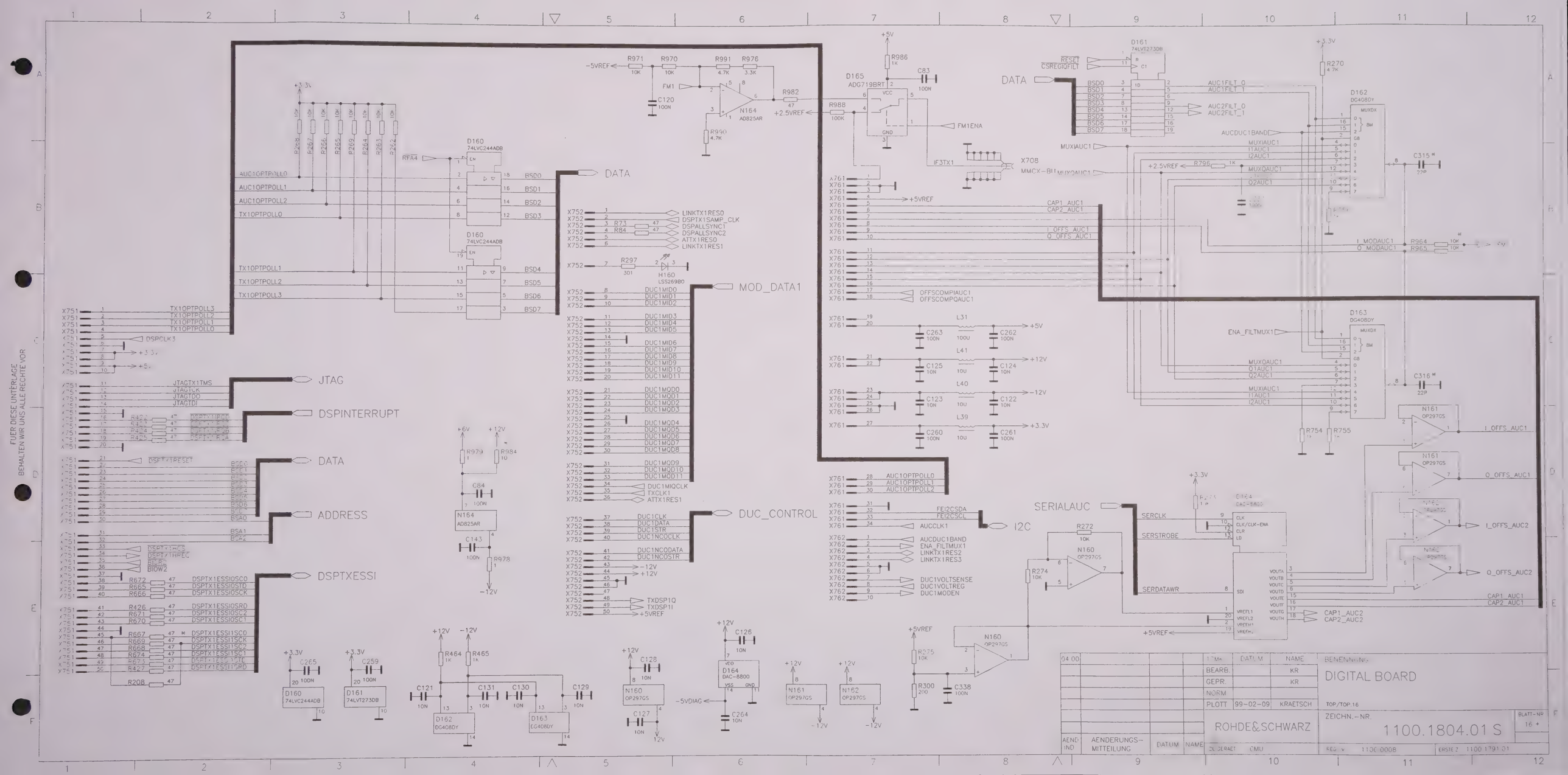
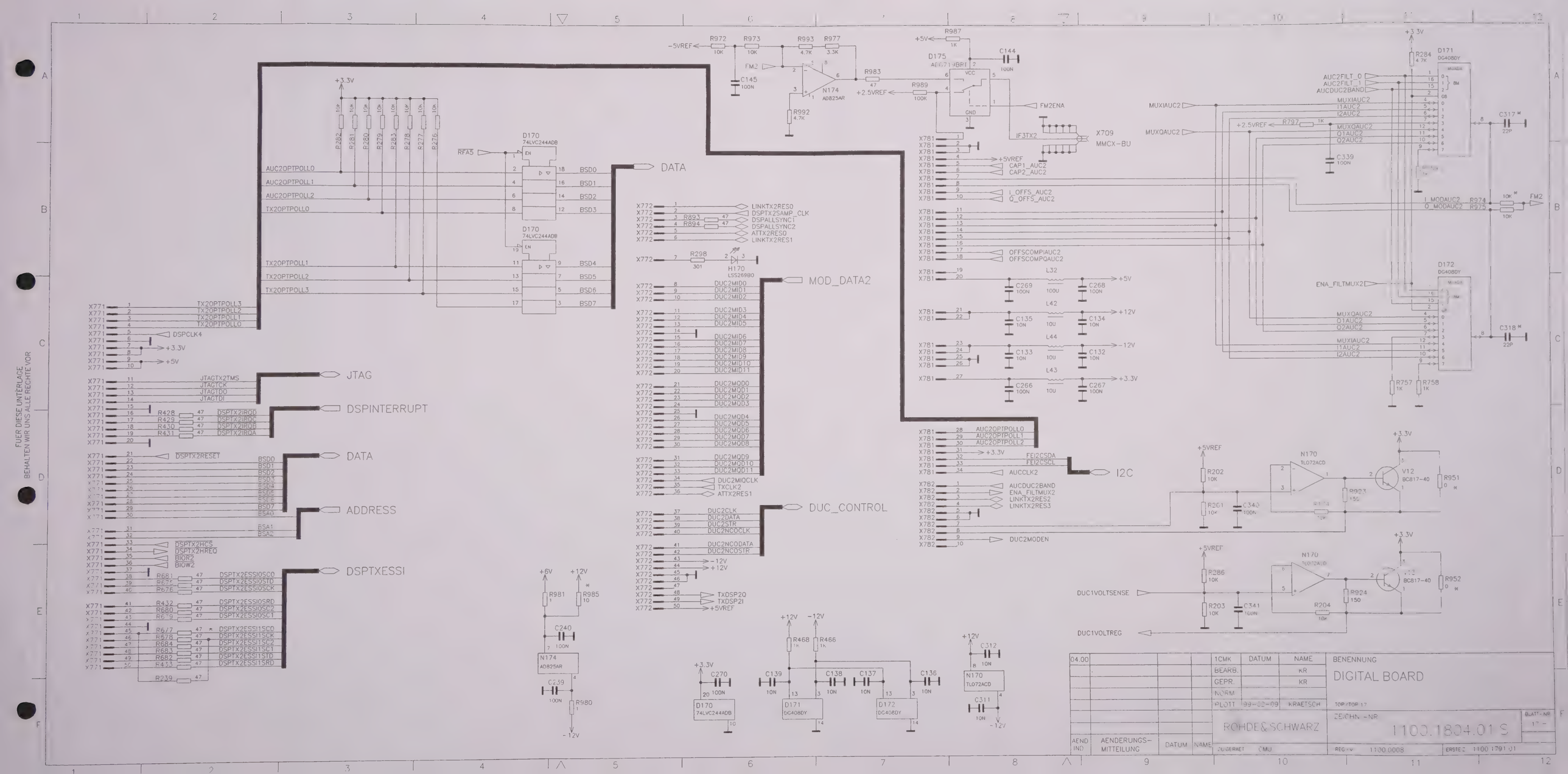
RXCLK2N1
RXCLK2N2
R751
1K
C314
22P
R915
47
R916
47
R603
47
CLKBUF2
R750
1K
R602
47
CLKADC2
R752
1K
R753
1K
RXCLK2B
C88
100N
L30
1U
C326
100N
C336
100N
C325
100N
C335
100N
VCC
GND
L53
1U
C291
100N
C252
100N
D130
74LVT244A
DEMSERROUTE
R607
47 LH2DEMSERDAT1
R606
47 LH2DEMSERDAT2
R605
47 LH2DEMSERCLK
R604
47 LH2DEMSERSTRB
R477
47 LH1DEMSERDAT1
R482
47 LH1DEMSERDAT2
R483
47 LH1DEMSERCLK
R484
47 LH1DEMSERSTRB
DEMOD_DATA_SERIAL
FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR
04 00
AEND. IND.
AENDERUNGS-MITTEILUNG
DATUM
NAME
1CMK
BEARB.
GEPR.
NORM
PLOTT
DATUM
NAME
KR
KR
99-02-09
KRAETSCH
BENENNUNG
DIGITAL BOARD
TOP/TOP.13
ROHDE&SCHWARZ
ZEICHN.-NR
1100.1804.01 S
BLATT-NR
13
ZU GERAET
CMU
REG.I.V.
1100.0008
ERSTE
1100 1791 01

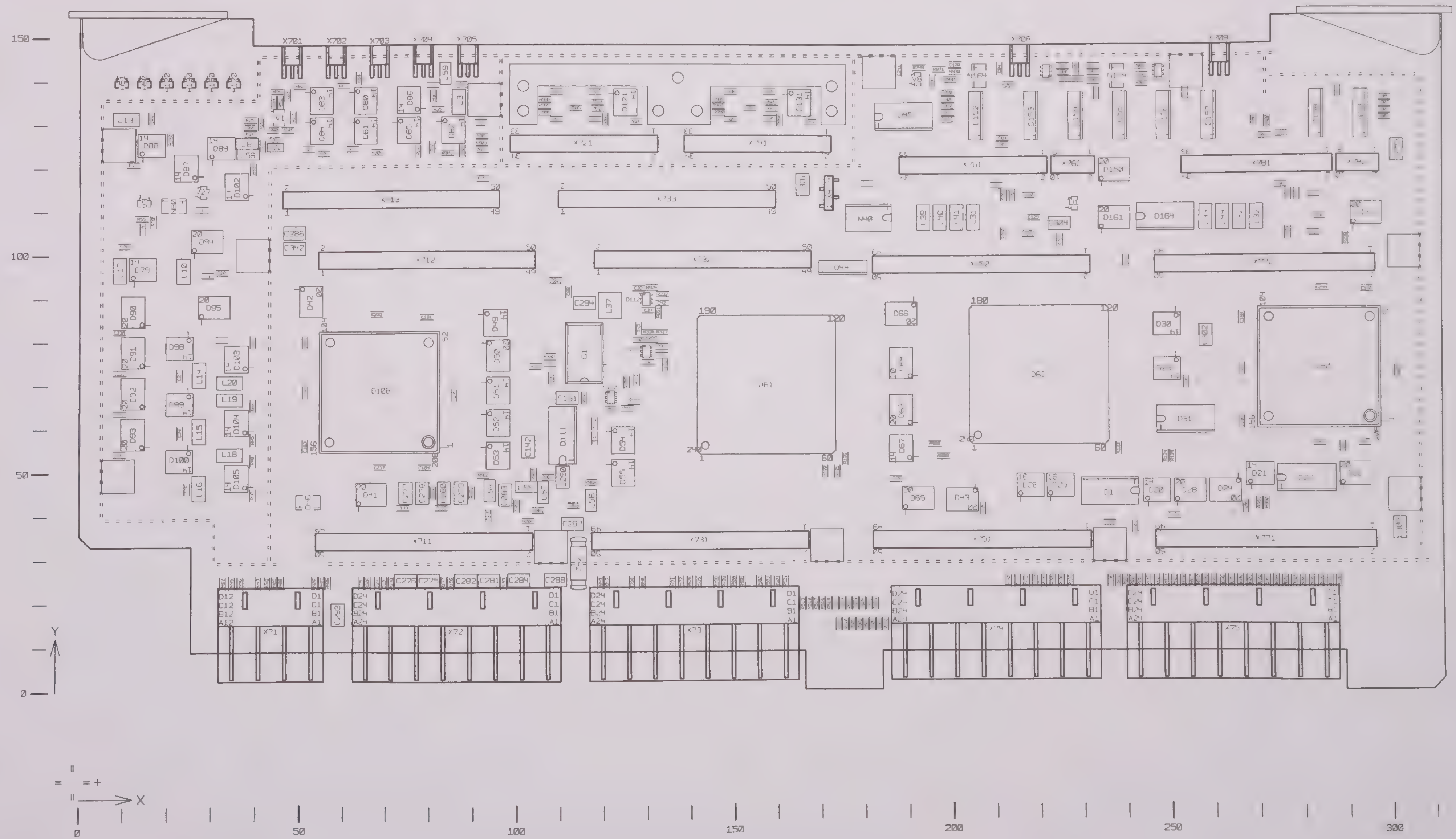


FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR
DATA
RESET
CSREGIQAUC1
LH_IQ
LH1PRITXI
LH1SECTXI
LH2PRITXI
LH2SECTXI
TXDSP1I
TXDSP2I
I_MODTOAUC1
I_MODTOAUC2
OFFSCOMPIAUC1
MUXIAUC1
SUMAUC1
IMODUFILAUC1
OFFSCOMPIAUC2
MUXIAUC2
SUMAUC2
IMODUFILAUC2
LH1PRITXQ
LH1SECTXQ
LH2PRITXQ
LH2SECTXQ
TXDSP1Q
TXDSP2Q
Q_MODTOAUC1
Q_MODTOAUC2
OFFSCOMPQAUC1
MUXQAUC1
SUMAUC1
QMODUFILAUC1
OFFSCOMPQAUC2
MUXQAUC2
SUMAUC2
QMODUFILAUC2
RESET
CSREGIQAUC2
DATA
D150 74LVT273DB
D151 74LVT273DB
D152 DG408DY
D153 DG408DY
D154 DG408DY
D155 DG408DY
D156 DG408DY
D157 DG408DY
D158 DG408DY
D159 DG408DY
D149 DG411DY
N152 AD744KR
N153 AD744KR
N156 AD744KR
N157 AD744KR
04.00
1CMK
DATUM
NAME
BEARB.
KR
GEPR.
KR
NORM
PLOTT
99-02-09
KRAETSCH
BENENNUNG
DIGITAL BOARD
TOP/TOP.15
ROHDE&SCHWARZ
ZEICHN.-NR.
1100.1804.01 S
BLATT NR
15 +
AEND. IND.
AENDERUNGS-MITTEILUNG
DATUM
NAME
ZU GERAET CMU
REG.-Nr. 1100.0008
ERSTE Z 1100.1791.01


FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR
DATA
JTAG
DSPINTERRUPT
DATA
ADDRESS
DSPTXESSI
MOD_DATA1
DUC_CONTROL
I2C
SERIALAUC
DIGITAL BOARD
ROHDE&SCHWARZ
1100.1804.01 S
TOP/TOP.16



FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR
DATA
MOD_DATA2
JTAG
DSPINTERRUPT
DATA
ADDRESS
DSPTXESSI
DUC_CONTROL
I2C
X709
MMCX-BU
D170
74LVC244ADB
D171
DG408DY
D172
DG408DY
N174
AD825AR
N170
TL072ACD
V12
BC817-40
DUC1VOLTSENSE
DUC1VOLTREG
04.00
1CMK
DATUM
NAME
BEARB.
KR
GEPR.
KR
NORM
PLOTT
99-02-09
KRAETSCH
BENENNUNG
DIGITAL BOARD
TOP/TOP 17
ZEICHN.-NR
1100.1804.01 S
ROHDE&SCHWARZ
AEND IND
AENDERUNGS-MITTEILUNG
DATUM
NAME
ZUGERAET
CMU
REG.-V
1100.0008
ERSTE Z
1100.1791.01



DARSTELLUNG SEITE B
VIEW ON SIDE B

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING.

BINDENDE ANGABEN UEBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

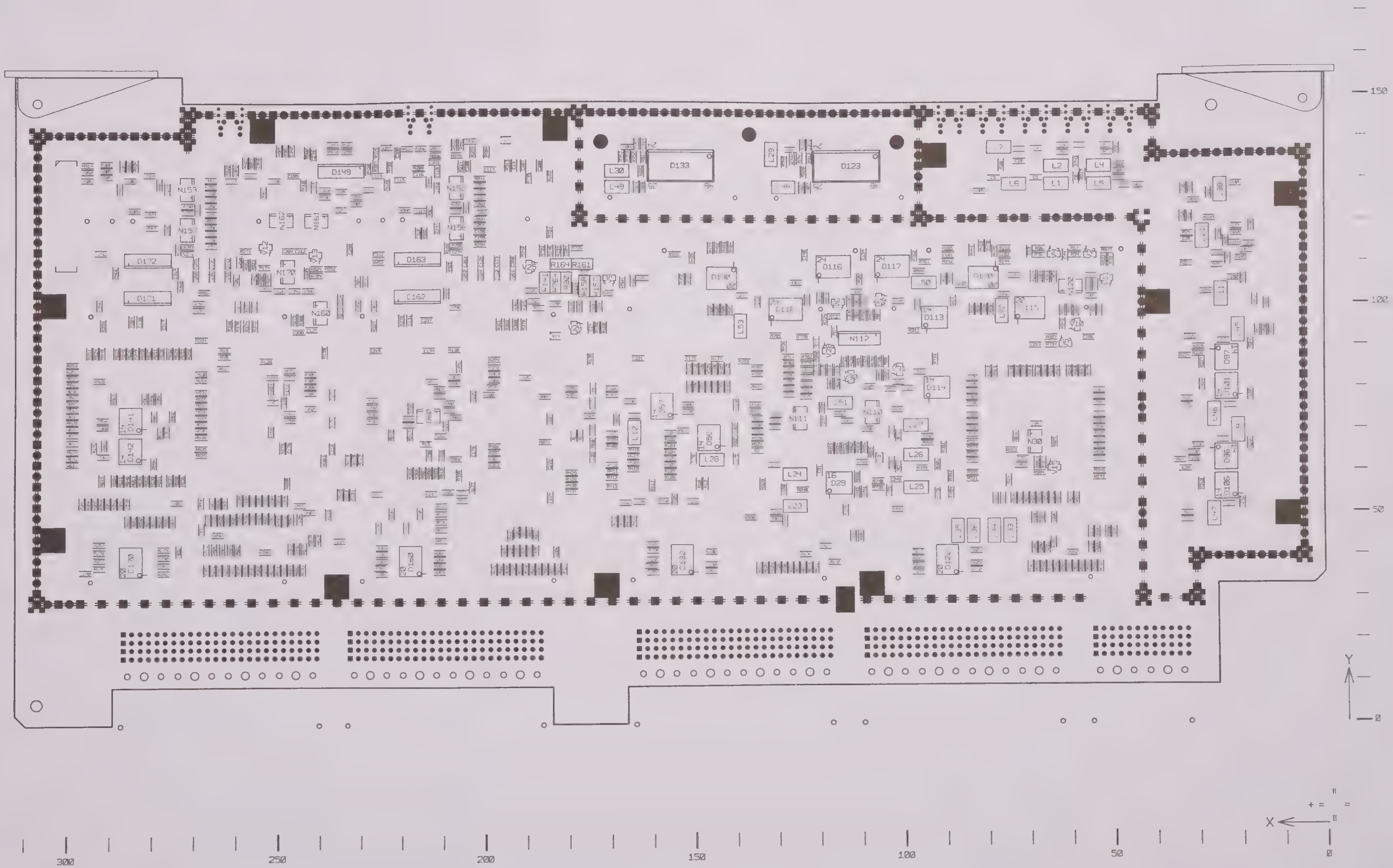
FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

	DATUM	NAME
BEARB.		KR
AENDERUNGS-MITTEILUNG	DATUM	NAME

ROHDE&SCHWARZ

BENENNUNG
DIGITAL BOARD

ZEICHN. NR.
1100.1804.01 D



DARSTELLUNG SEITE A
VIEW ON SIDE A

ACHTUNG: EGB!
ELEKTROSTATISCH GEFÄHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN ÜBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

NAME	KR	
	KR	
00-02-09	KRAETSCH	

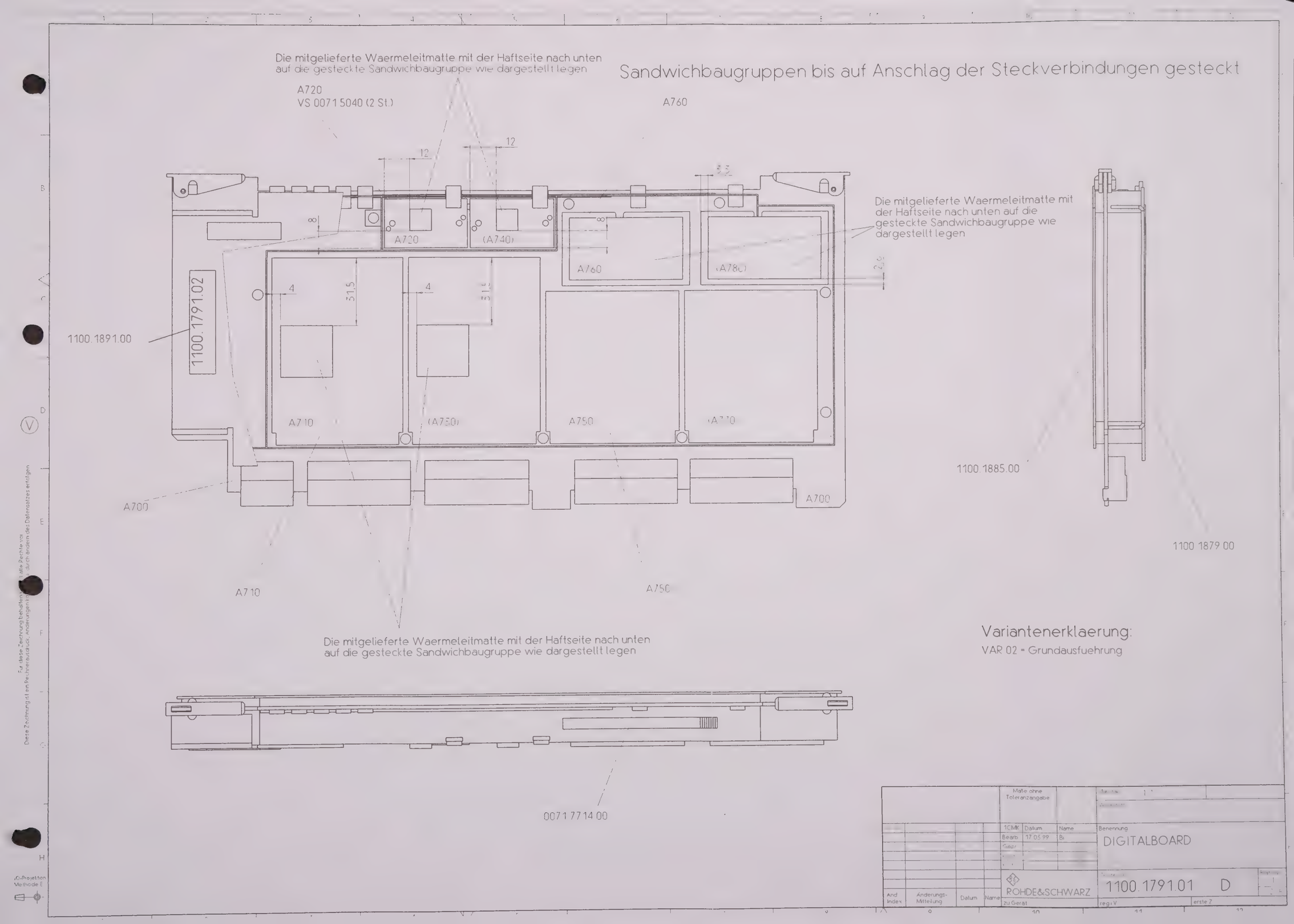
AENDERUNGS-MITTEILUNG | DATUM | NAME

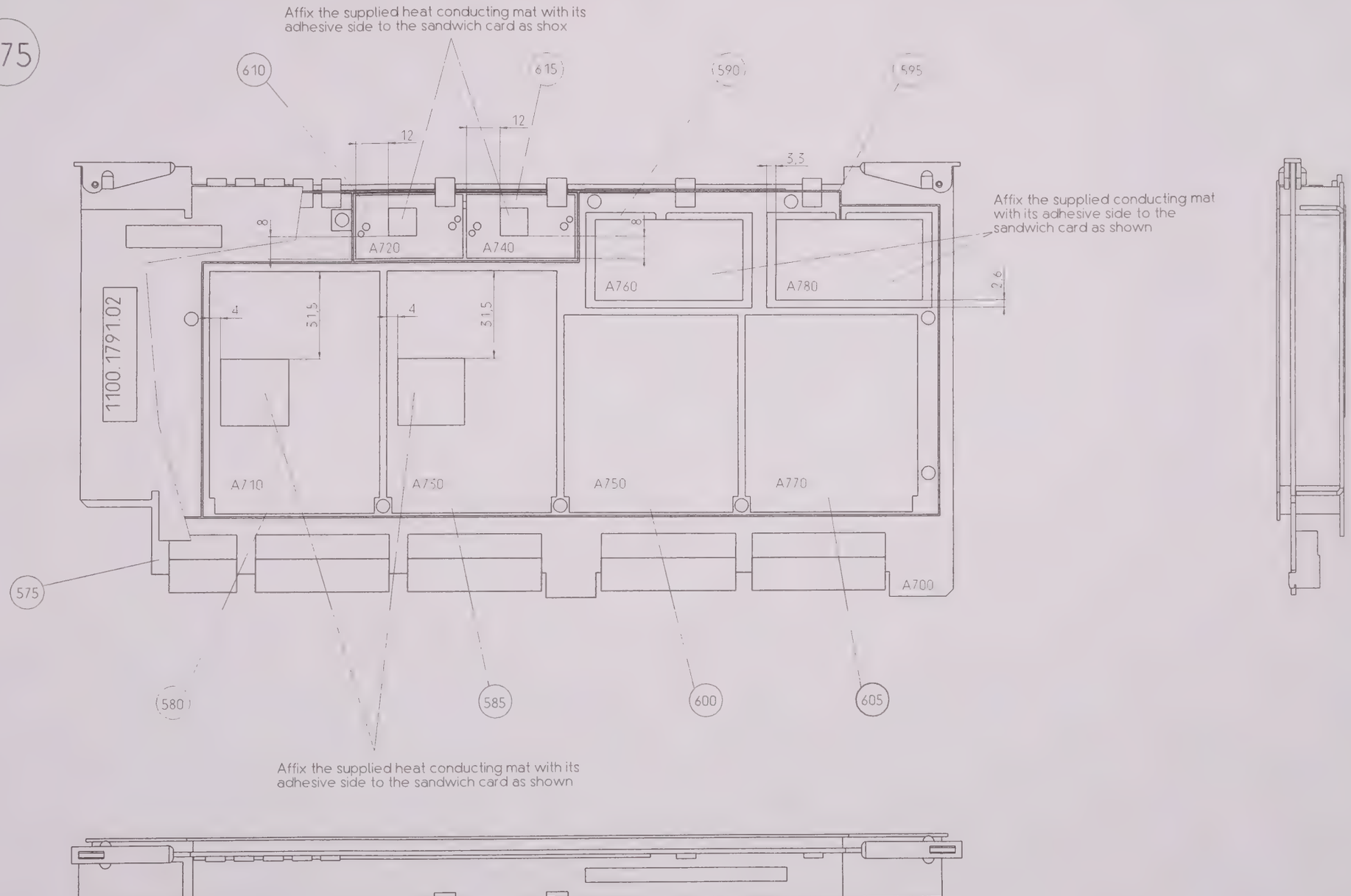
ROHDE&SCHWARZ

BENENNUNG
DIGITAL BOARD

ZEICHN. NR.
1100.1804.01 D

BEHALTEN WIR UNS ALLE RECHTE VOR


Sandwichbaugruppen bis auf Anschlag der Steckverbindungen gesteckt
Die mitgelieferte Waermeleitmatte mit der Haftseite nach unten auf die gesteckte Sandwichbaugruppe wie dargestellt legen
A720
VS 0071 5040 (2 St.)
A760
12
12
3,3
8
8
A720
(A740)
A760
(A780)
2,6
4
31,5
4
31,5
1100.1791.02
1100.1891.00
A710
(A730)
A750
(A770)
A700
A700
A710
A750
Die mitgelieferte Waermeleitmatte mit der Haftseite nach unten auf die gesteckte Sandwichbaugruppe wie dargestellt legen
Die mitgelieferte Waermeleitmatte mit der Haftseite nach unten auf die gesteckte Sandwichbaugruppe wie dargestellt legen
1100.1885.00
1100.1879.00
Variantenerklaerung:
VAR 02 = Grundausfuehrung
0071 7714 00
Maße ohne Toleranzangabe
1CMK
Datum
Name
Bearb
17.05.99
Bi
Benennung
DIGITALBOARD
ROHDE&SCHWARZ
1100.1791.01
D
And Index
Änderungs-Mitteilung
Datum
Name
zu Gerät
regi V
erste Z



Maße ohne Toleranzangabe		Maßstab 1:1	
		Werkstoff	
03.00		Benennung DIGITALBOARD	
Plot			
ROHDE&SCHWARZ		Zeichn.-Nr 1100.1791.01 D	Blatt-Nr 2
Zu Gerät		regi V	erste Z
And. Index	Änderungs-Mitteilung	Datum	Name

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ISO-Projektion Methode E

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
-	XX VARIANTENERKLAERUNG IDENTIFICATION OF MODELS				
C2	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C3	CC 6,8NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8915.00	PHILIPS_CO	2238 581 16625	
C4	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
C5	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
C6	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C7	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C10	CC 56PF+-1% 50VNPO 0603 SMD CERAMIK CAPACITOR	1093.6417.00	MURATA	GRM39C0G***F50ZPT	
C13	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C15	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C18	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C20	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C21	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C22	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C23 ..31	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C44	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C79	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
D1	BC X24C02S8I-2,7 256X8 SERIELL EEPROM	1100.4655.00	XILINX	X24C02 G	
D2	BJ AD9042AST 1X12B-ADC 12BIT 41MSPS AD CONVERTER	1080.7578.00	ANALOG_DEV	AD9042AST	
L1	LD 10UH 10% 0,18A 1210 SMD-INDUCTOR	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L2	LD 10UH 10% 0,18A 1210 SMD-INDUCTOR	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L3	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L4	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
R1 ..3	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R4	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R5	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R6	RG 220R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6953.00	DRALORIC	CR 0603	
R19	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R21	RG 750R +-1% TK200 0603 SMD RESISTOR	1097.6492.00	DRALORIC	CR 0603	
R25	RN 220R X4 5% SMD1206 RESISTOR NETWORK	0048.5002.00	PHILIPS_CO	2350 034 10221	
R26	RN 220R X4 5% SMD1206 RESISTOR NETWORK	0048.5002.00	PHILIPS_CO	2350 034 10221	
R37	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R43	RG 51,0 OHM+-1%TK200 0603 SMD-RESISTOR EIA0603	0009.9030.00	DRALORIC	CR 0603	
R64	RG 75,0 OHM+-1%TK200 0603 SMD RESISTOR	0048.4906.00	DRALORIC	CR 0603	
R69	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R72	RG 2K0 +-1% TK200 0603 SMD RESISTOR	1097.6328.00	DRALORIC	CR 0603	
R75	RG 1K0 +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	

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1CMK 768 3PLU	Äl	Datum Date	Schaltteilliste für Parts list for	Sachnummer Stock No.	Blatt-Nr. Page
ROHDE&SCHWARZ	07	30.03.99	EE ADC MODULE	1100.2200.01 SA	1+

095.0026-0693

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R80	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R83	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R84	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R129	RN 220R X4 5% SMD1206 RESISTOR NETWORK	0048.5002.00	PHILIPS_CO	2350 034 10221	
T3	LU HF-UEBERTR.1:4R SMD WIDE BAND TRANSFORMER	1100.4878.00	MINI-CIRCU	TC4-1W	
X1	FP BUCHSENLEISTE 34P.GER CONNECTOR	FP 1043.9958.00	3M	150234-2020TB	
X700	FJ EINLOETBUCHSE MMCX CONNECTOR	1085.1532.00	SUHNER	82MMCXS50-0-2/111KG	

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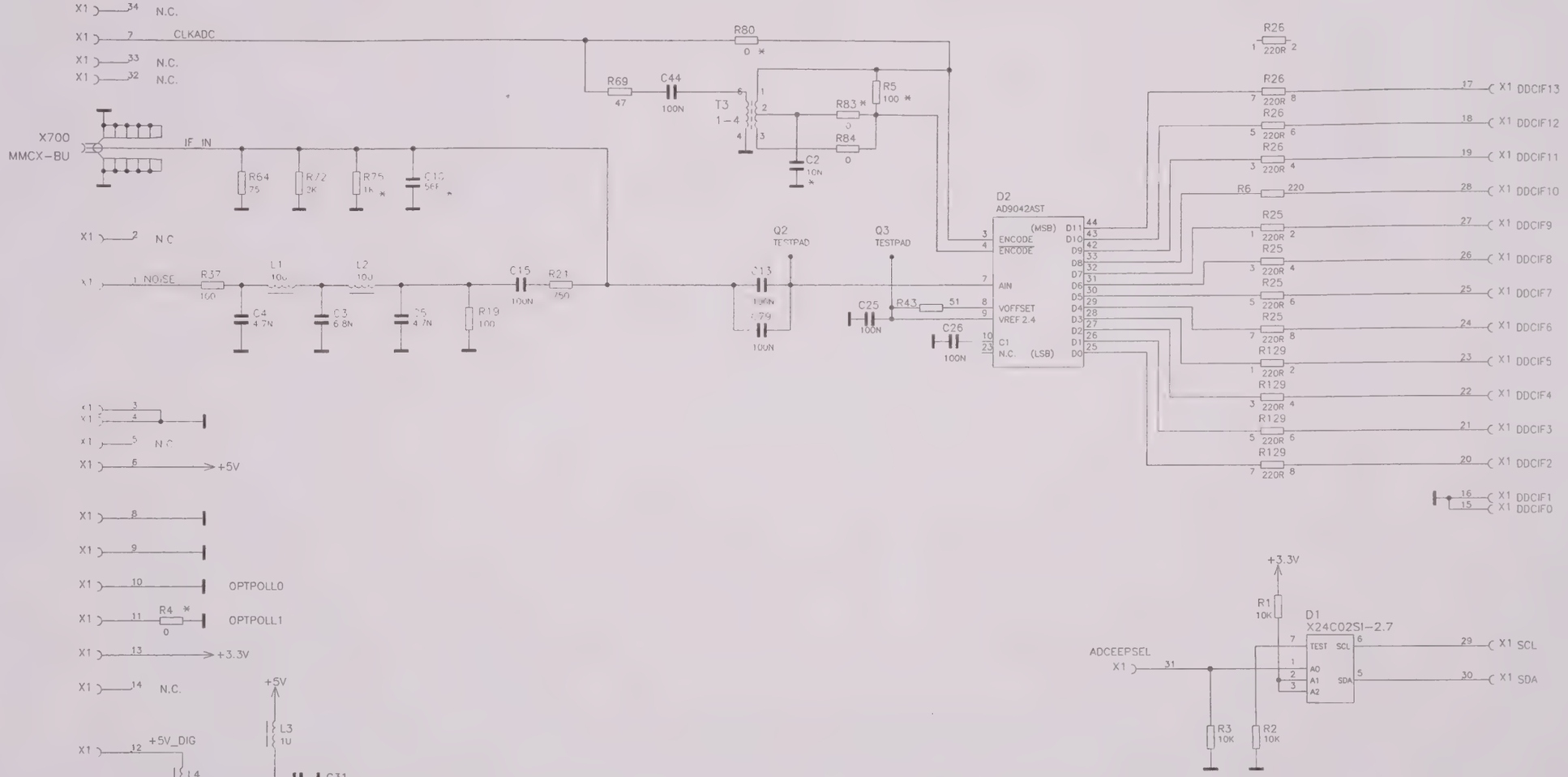
wir uns alle Rechte vor.

FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR



Bindende Angaben ueber Varianten, Trimmwerte, Bauteile und nicht bestueckte Bauteile siehe SA.

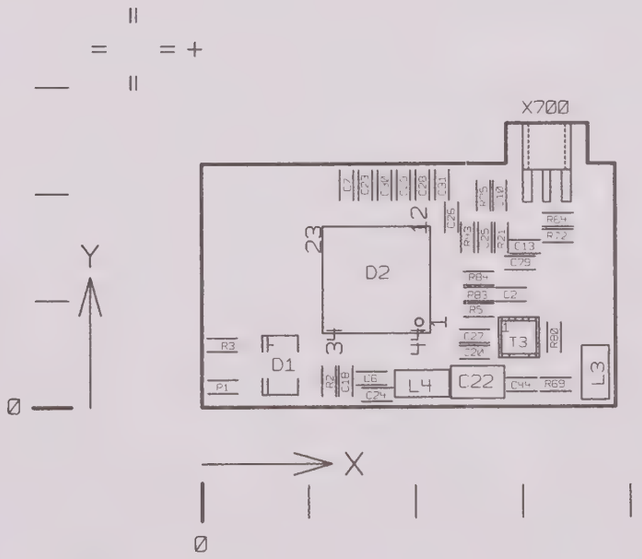
FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST

* NOT FITTED

ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

04.01				1CMK	DATUM	NAME	BENENNUNG	
				BEARB.		KR	ADC MODULE	
				GEPR.		KR		
				NORM				
				PLOTT	98-11-30	NEUGEBAU	TOP/TOP 1	
							ZEICHN.-NR.	BLATT-NR
				ROHDE&SCHWARZ			1100.2200.01 S	1 -
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET CMU			REG.I.V. 1100.0008	ERSTE Z 1100.0008.01

FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR



DARSTELLUNG SEITE B
VIEW ON SIDE B

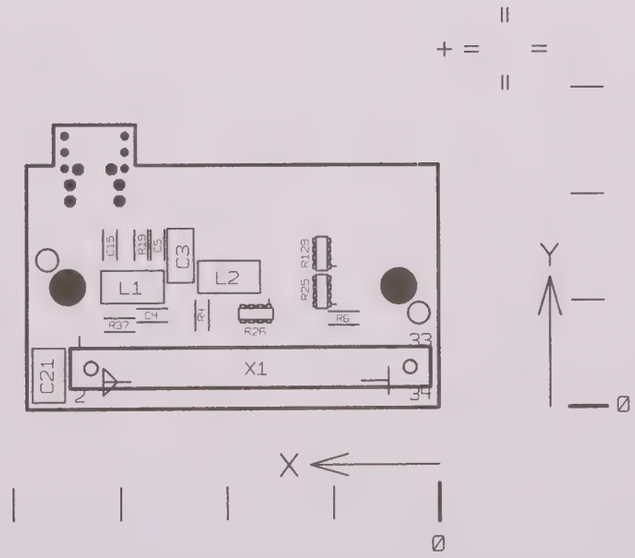
ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN UEBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

04.00				1CMK	DATUM	NAME	BENENNUNG
				BEARB.		KR	ADC MODULE
				GEPR.		KR	
				NORM			
				PLOTT	98-11-11	NEUGEBAU	
				ROHDE&SCHWARZ			ZEICHN.-NR. 1100.2200.01 D
				ZU GERAET CMU			BLATT-NR. 1+
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	REG.I.v. 1100.0008			ERSTE Z. 1100.0008 V. BL.

FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR



DARSTELLUNG SEITE A
VIEW ON SIDE A

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN UEBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
04.00			

	DATUM	NAME
1 CMK		
BEARB.		KR
GEPR.		KR
NORM		
PLOTT	98-11-11	NEUGEBAU

ROHDE&SCHWARZ
ZU GERAET CMU

BENENNUNG
ADC MODULE

ZEICHN.-NR.
1100.2200.01 D

BLATT-NR. 2-
V. BL.

REG.I.V. 1100.0008 | ERSTE Z. 1100.0008

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
.	XX VARIANTENERKLAERUNG IDENTIFICATION OF MODELS				
C1 ..13	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C14	CC 10PF+-0,1 50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C15	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C16	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C17	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C18	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C19	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C20	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C21	CC 10PF+-0,1 50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C22	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C23	CC 10PF+-0,1 50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C24 ..31	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C32	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 02	1097.6292.00	PHILIPS_CO	2238 786 16649	
C32	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 04	1097.6292.00	PHILIPS_CO	2238 786 16649	
C33	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C34	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C35 ..38	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C39	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C50OPT*	
C40	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C41	CC 10PF+-0,1 50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C42 ..45	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C46	CC 10PF+-0,1 50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C47	CC 10PF+-0,1 50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C48	CC 10PF+-0,1 50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C49 ..55	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C56	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C57 ..61	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C62	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C63 ..68	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C69	CC 10PF+-0,1 50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C70	CC 10PF+-0,1 50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C71	CC 10PF+-0,1 50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C72	CC 10PF+-0,1 50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C73	CC 10PF+-0,1 50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
D1 ..1 ..3	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 03	1065.8402.00	SAMSUNG	KM68V1002AJ-12	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
D3	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 05	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D4	BL 74CBT16233 2X16 SWITCH 16-BIT BUS SWITCH	1110.3039.00	TEXAS	(SN74)CBT16233(DL)	
D5	BG 55584 ECAT05 DDC2 IC GATEARRAY	1093.6617.00	ATMEL	1093.6617 /55584B 02	
D6	BL 74CBT3384A 2X5SWITCH 10-BIT BUS SWITCH	1097.6457.00	TEXAS	SN74CBT3384A(DB)	
D7	BC DSP56303PV80 SIGNPROC IC DIG SIGN PROCESSOR	2080.6232.00	MOTOROLA	DSP56303PV80	
D8	BC CY7C4225-15 1KX18 FIFO IC MEMORY FIFO	1100.4855.00	IDT	IDT72V225L(A)15TF	
D9	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 03	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D9	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 05	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D9	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 02	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D9	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 04	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D10	BC EPM7128STC100-10 EPLD IC PROG,LOGIC	1100.4649.00	ALTERA	EPM7128STC100-10	
D11	BC CY7C4225-15 1KX18 FIFO IC MEMORY FIFO	1100.4855.00	IDT	IDT72V225L(A)15TF	
D12	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 03	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D12	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 05	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D12	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 02	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D12	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 04	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D13	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 03	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D13	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 05	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D13	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 02	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D13	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 04	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D14	BL 74LVT08DB 4X2AND 3.3V QUAD 2-IN AND GATE NUR VAR/ONLY MOD: 02	0048.3180.00	PHILIPS_SE	74LVT08(DB)	
D14	BL 74LVT08DB 4X2AND 3.3V QUAD 2-IN AND GATE NUR VAR/ONLY MOD: 04	0048.3180.00	PHILIPS_SE	74LVT08(DB)	
D15	BC CY7C4225-15 1KX18 FIFO IC MEMORY FIFO	1100.4855.00	IDT	IDT72V225L(A)15TF	
D16	BL 74LVT32DB 4X2OR 3.3V QUAD 2-INPUT OR GATE	0048.3216.00	PHILIPS_SE	74LVT32DB	
D17	BC X24C02S8I-2,7 256X8 SERIELL EEPROM	1100.4655.00	XILINX	X24C02 G	
D18	BL 74LVT14DB 6XINV.SCHM 3.3V 6-INV SCHMITT-TRIGG.	0048.4335.00	PHILIPS_SE	(74)LVT14(DB)	
D19	BL 74LVT32DB 4X2OR 3.3V QUAD 2-INPUT OR GATE	0048.3216.00	PHILIPS_SE	74LVT32DB	
R1 ..3	RG 2K74 +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8410.00	DRALORIC	CR 0603	
R4	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R5	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R6	RG 2K74 +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8410.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R7	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R8	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R9	RG 2K74 +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8410.00	DRALORIC	CR 0603	
R10	RG 2K74 +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8410.00	DRALORIC	CR 0603	
R11	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R12	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R13	RG 10R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5328.00	DRALORIC	CR 0603	
R14	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R15	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	RG 0009.5357.00	DRALORIC	CR 0603	
R15	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	RG 0009.5357.00	DRALORIC	CR 0603	
R16 ..25	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R26	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R27	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R28	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R29	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R30	RG 10R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5328.00	DRALORIC	CR 0603	
R31 ..33	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R34	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R35	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R36	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R37	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R38	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R39	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R40 ..44	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R45	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R46	RG 10R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5328.00	DRALORIC	CR 0603	
R47 ..51	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R52	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R53	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R54	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R55	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R56	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R57 ..60	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R61	RG 10R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5328.00	DRALORIC	CR 0603	
R62 ..66	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R67	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R68	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R69	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R70	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R71	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R72	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R73 ..80	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R81	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R82	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R83	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R84	RG 2K74 +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8410.00	DRALORIC	CR 0603	
R85	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R86	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R87	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R88	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R89	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R89	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R90	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R90	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R91	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R91	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R92	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R92	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R93 ..98	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R99	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R100	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R101	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R102	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R103	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R104	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R105	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R106	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R107	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R108	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R109	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R110	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R111	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	

Für diese Unterlage behalten wir uns alle Rechte vor.

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R112	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R113	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R114	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R115	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R116	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R117	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R118	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R119	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R120	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
V1	AD BAS216 75V UDI HIGHSPEED SWITCHING DIODE	0010.9346.00	PHILIPS_SE	BAS216	
X1 ..3	FP BUCHSENLEISTE 50P. SMD CONNECTOR 50P SMD	FP 1065.8702.00	3M	150250-2020TB	
X8	FP STECKERLEISTE 14POL. CONNECTOR 14P	FP 6040.4605.00			

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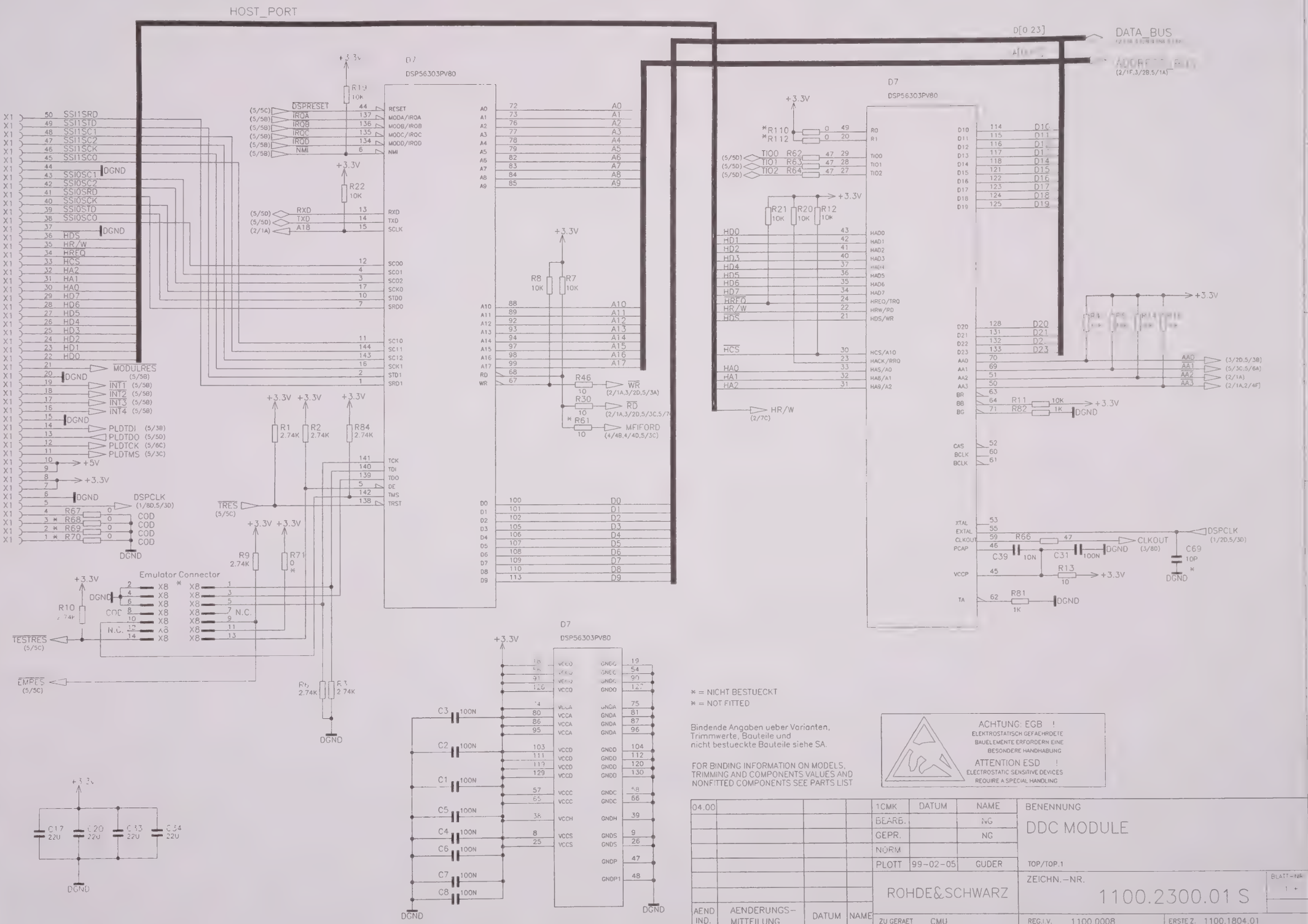
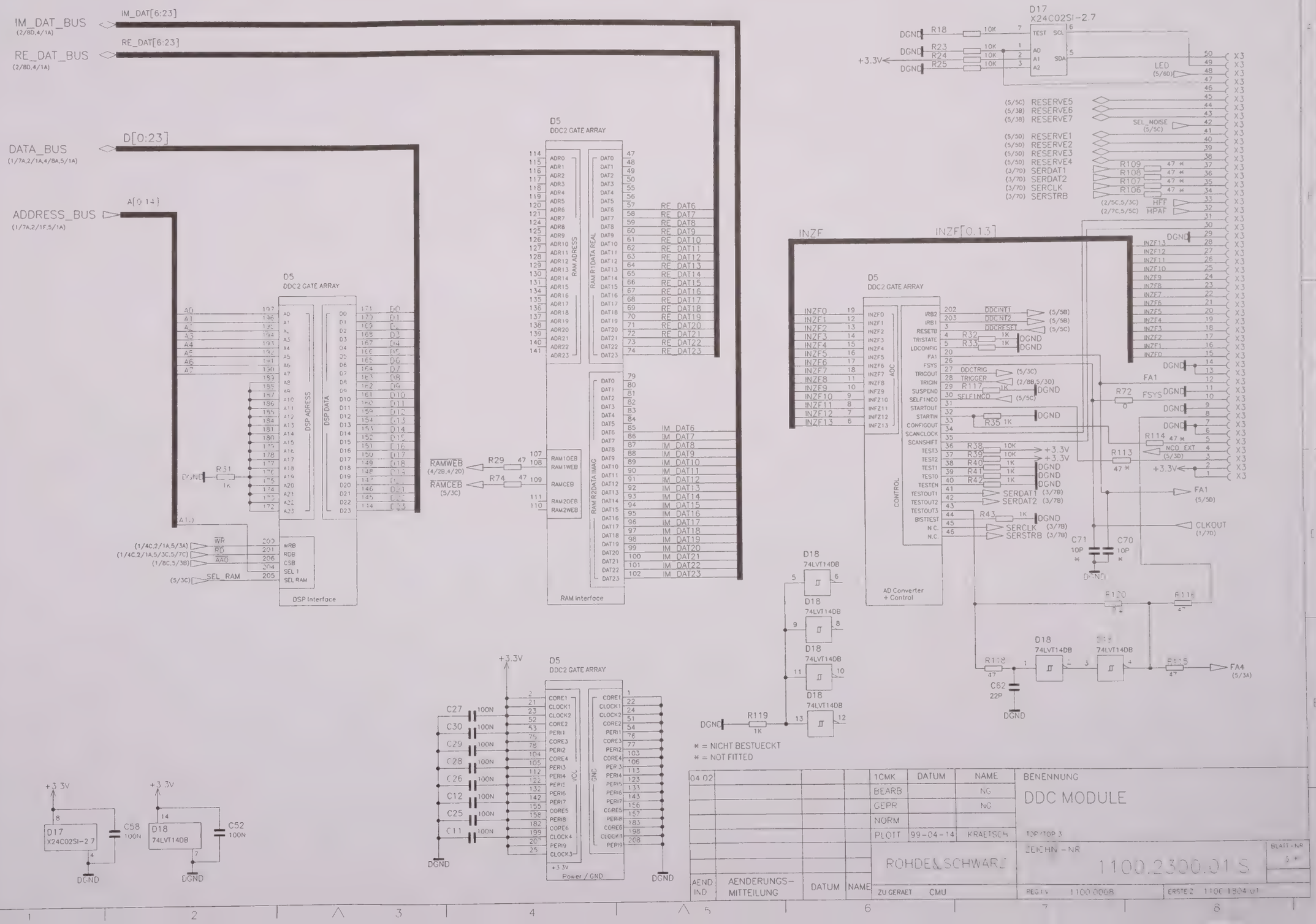
wir uns alle Rechte vor.

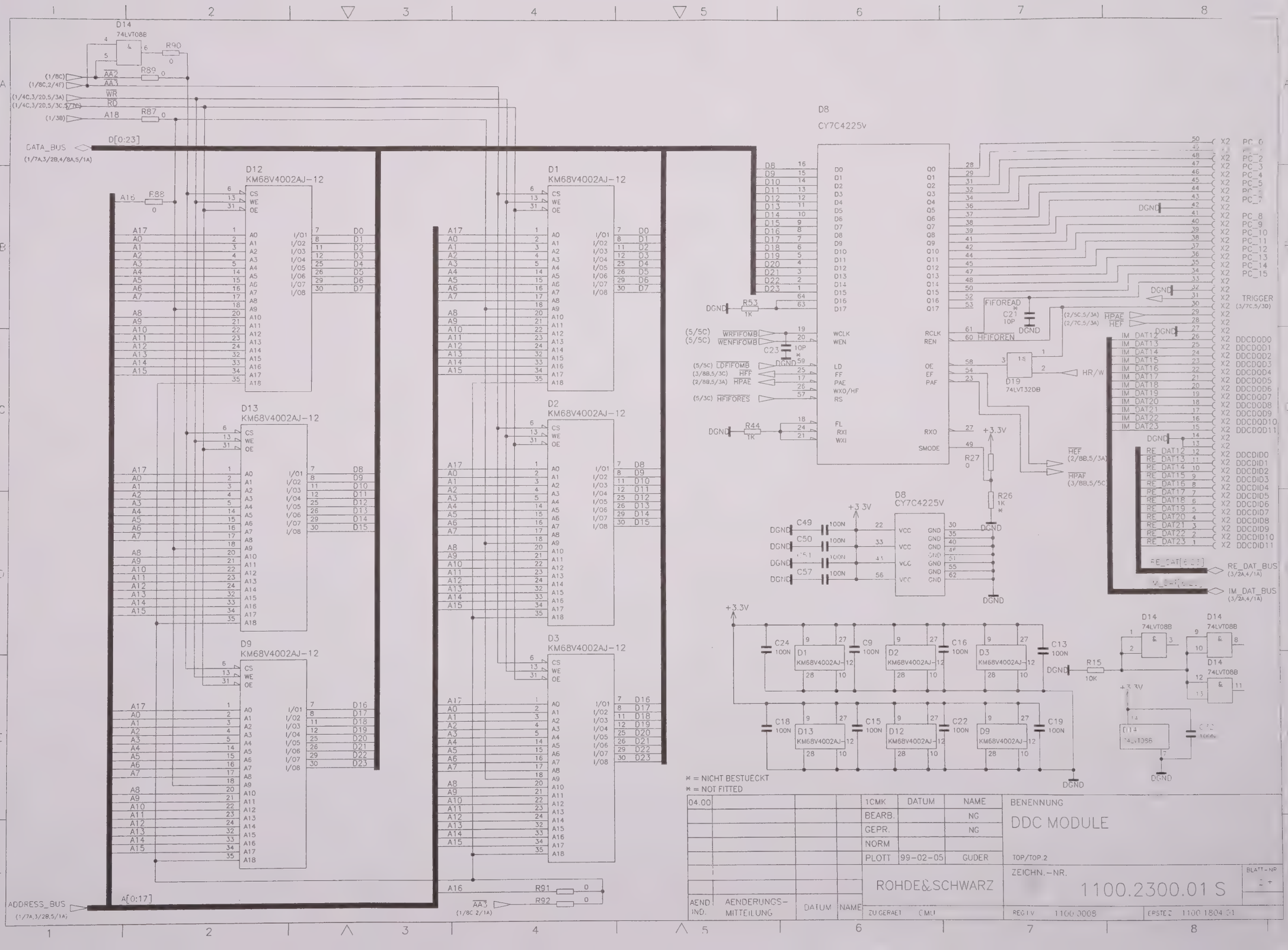
DIESE UNTERLAGE BEHALTEN WIR UNS ALLE RECHTE VOR

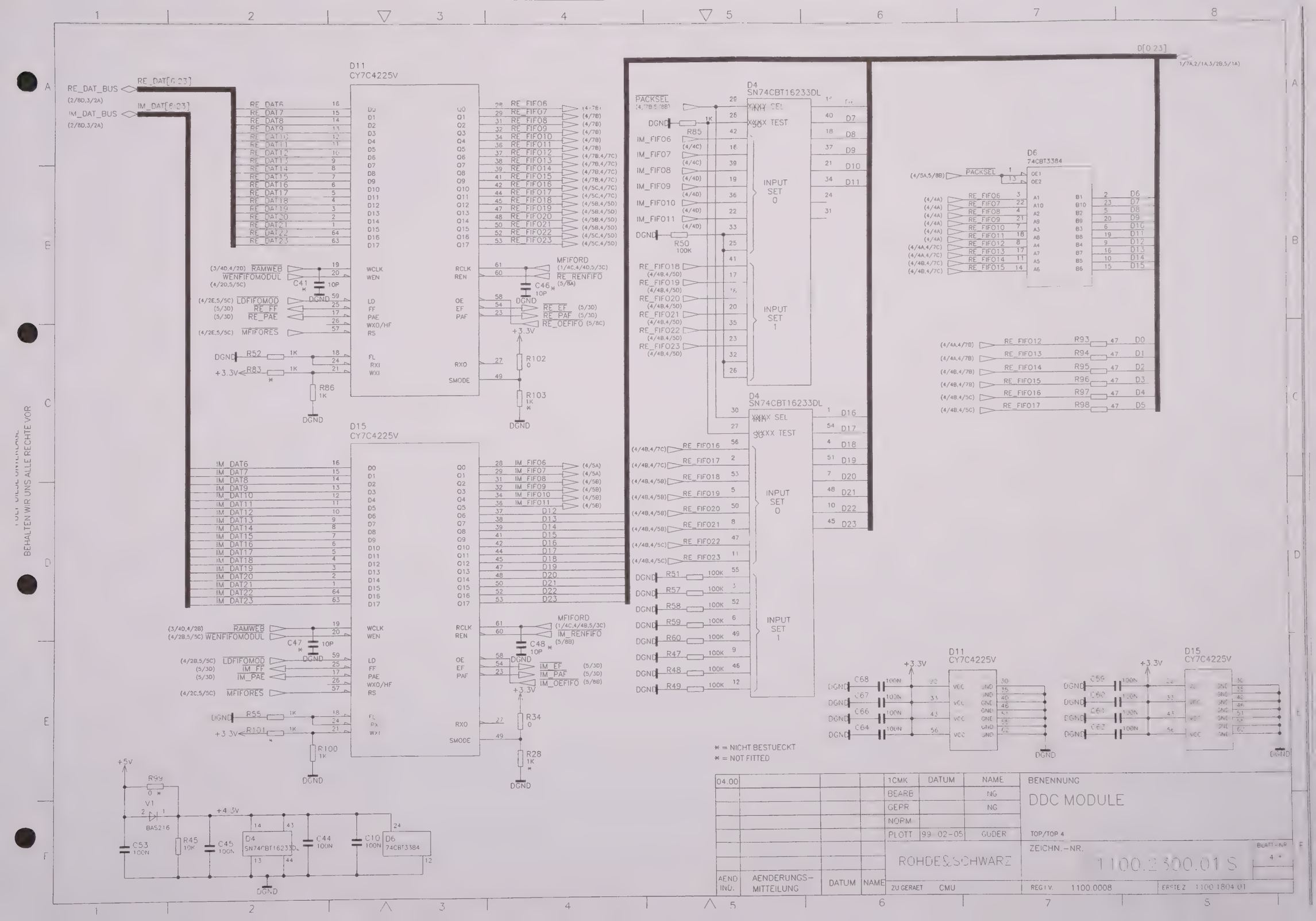


04.00				1CMK	DATUM	NAME	BENENNUNG
				BEARB.		NG	DDC MODULE
				GEPR.		NG	
				NORM			
				PLOTT	99-02-05	GUDER	TOP/TOP.1
AEND IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ROHDE&SCHWARZ			ZEICHN.-NR. 1100.2300.01 S
				ZU GERAET CMU			REG.I.V. 1100.0008 ERSTE Z. 1100.1804.01

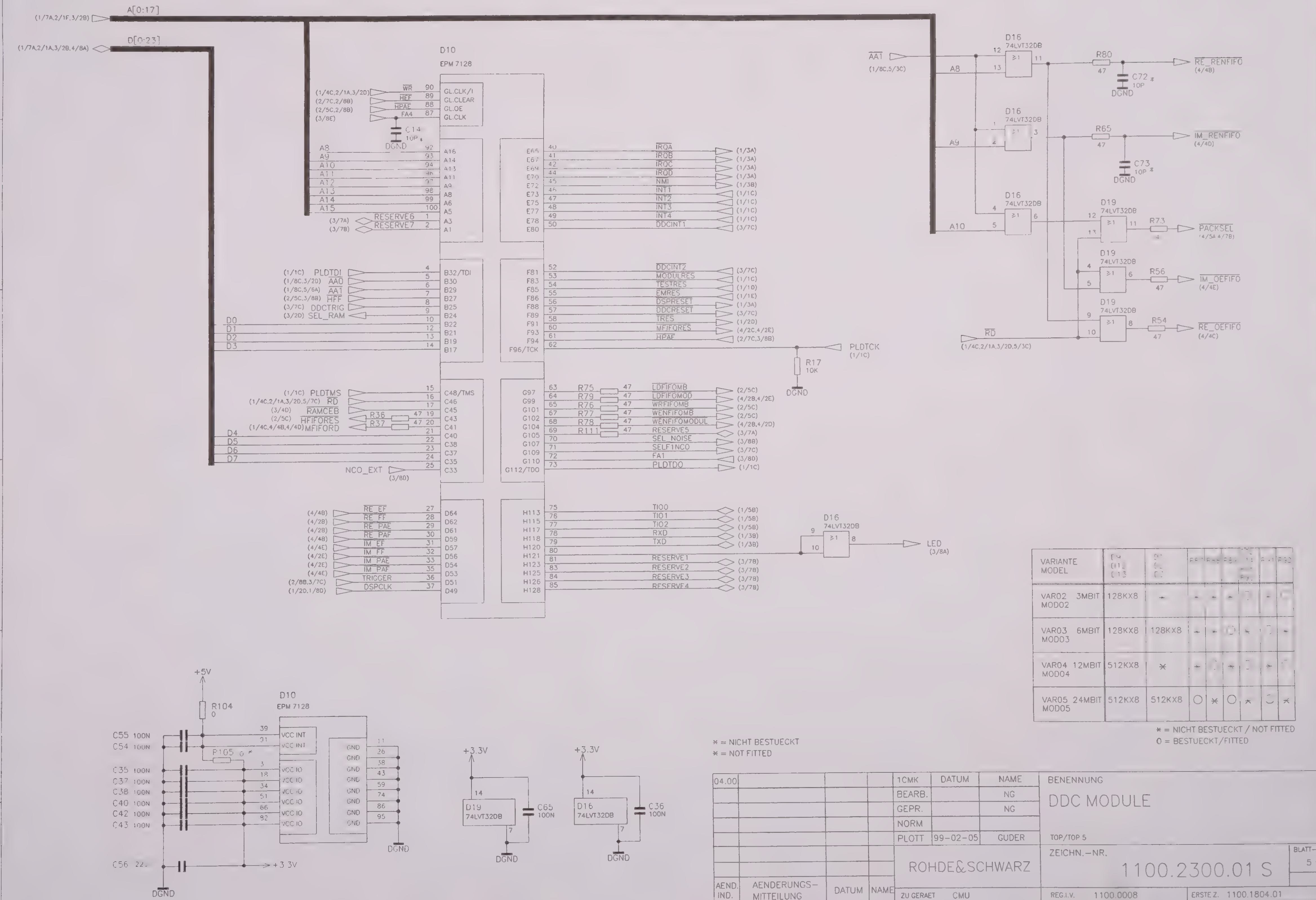
DIESE UNTERLAGE BEHALTEN WIR UNS ALLE RECHTE VOR




D14
74LVT08B
R90
R89
R87
(1/8C)
(1/8C,2/4F)
(1/4C,3/20,5/3A)
(1/4C,3/20,5/3C,5/7C)
(1/3B)
AA2
AA3
WR
RD
A18
DATA_BUS
(1/7A,3/2B,4/8A,5/1A)
D[0:23]
D12
KM68V4002AJ-12
D13
KM68V4002AJ-12
D9
KM68V4002AJ-12
D1
KM68V4002AJ-12
D2
KM68V4002AJ-12
D3
KM68V4002AJ-12
A16
R88
A[0:17]
ADDRESS_BUS
(1/7A,3/2B,5/1A)
R91
R92
AA3
(1/8C 2/1A)
D8
CY7C4225V
R53
1K
R44
1K
C23
10P
C21
10P
FIFOREAD
WRFIFOMB
WENFIFOMB
LDFIFOMB
HFF
HPAE
HFIFORES
HFIFOREN
D19
74LVT32DB
HR/W
R27
0
R26
1K
+3.3V
DGND
C49
C50
C57
100N
R15
10K
HEF
(2/8B,5/3A)
HPAF
(3/8B,5/5C)
TRIGGER
(3/7C,5/3D)
RE_DAT_BUS
(3/2A,4/1A)
IM_DAT_BUS
(3/2A,4/1A)
PC_0
PC_1
PC_2
PC_3
PC_4
PC_5
PC_6
PC_7
PC_8
PC_9
PC_10
PC_11
PC_12
PC_13
PC_14
PC_15
DDCDOD0
DDCDOD1
DDCDOD2
DDCDOD3
DDCDOD4
DDCDOD5
DDCDOD6
DDCDOD7
DDCDOD8
DDCDOD9
DDCDOD10
DDCDOD11
DDCDID0
DDCDID1
DDCDID2
DDCDID3
DDCDID4
DDCDID5
DDCDID6
DDCDID7
DDCDID8
DDCDID9
DDCDID10
DDCDID11
* = NICHT BESTUECKT
* = NOT FITTED
04.00
AEND IND.
AENDERUNGS-MITTEILUNG
DATUM
NAME
1CMK
BEARB.
GEPR.
NORM
PLOTT
99-02-05
GUDER
NG
BENENNUNG
DDC MODULE
TOP/TOP.2
ROHDE&SCHWARZ
ZEICHN.-NR.
1100.2300.01 S
BLATT-NR
ZU GERAET CMU
REG.NR 1100.0008
ERSTES 1100 1804.01



D11
CY7C4225V
D15
CY7C4225V
D4
SN74CBT16233DL
D6
74CBT3384
RE_DAT_BUS
IM_DAT_BUS
RE_DAT[6:23]
IM_DAT[6:23]
D[0:23]
PACKSEL
RAMWEB
WENFIFOMODUL
LDFIFOMOD
MFIFORES
MFIFORD
RE_RENFIFO
RE_EF
RE_PAF
RE_OEFIFO
IM_RENFIFO
IM_EF
IM_PAF
IM_OEFIFO
INPUT SET 0
INPUT SET 1
+3.3V
+5V
DGND
BAS216
* = NICHT BESTUECKT
* = NOT FITTED
ROHDE&SCHWARZ
BENENNUNG
DDC MODULE
TOP/TOP 4
ZEICHN.-NR.
1100.2300.01 S
ZU GERAET CMU
REG I V. 1100.0008
ERSTE Z 1100 1804 01
AEND IND.
AENDERUNGS-MITTEILUNG
DATUM
NAME
1CMK
BEARB
GEPR
NORM
PLOTT
99 02-05
GUDER
NG



VARIANTE MODEL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
VAR02 3MBIT MOD02	128KX8	*	*	*	*	O	*	O
VAR03 6MBIT MOD03	128KX8	128KX8	*	*	O	*	O	*
VAR04 12MBIT MOD04	512KX8	*	*	O	*	O	*	O
VAR05 24MBIT MOD05	512KX8	512KX8	O	*	O	*	O	*

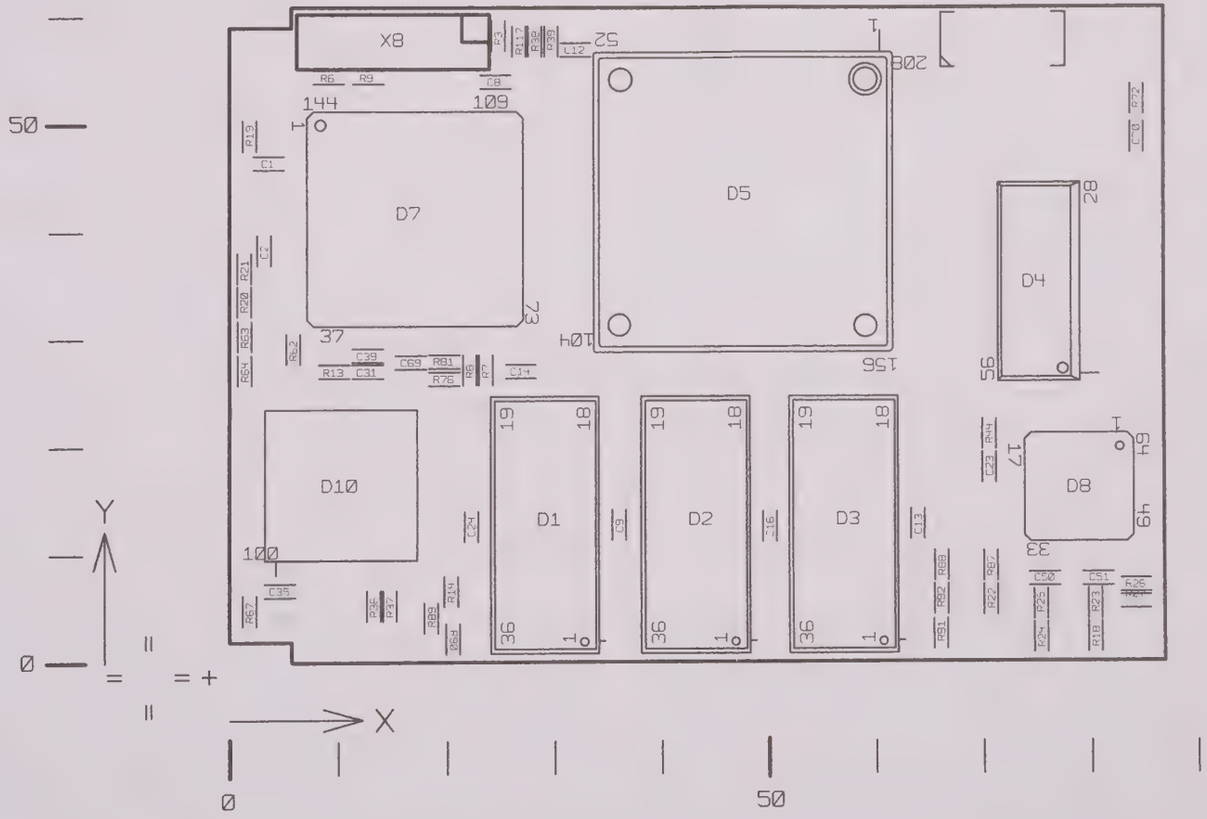
* = NICHT BESTUECKT / NOT FITTED
O = BESTUECKT/FITTED

* = NICHT BESTUECKT
* = NOT FITTED

04.00			1CMK	DATUM	NAME	BENENNUNG
			BEARB.		NG	DDC MODULE
			GEPR.		NG	
			NORM			
			PLOTT	99-02-05	GUDER	TOP/TOP 5
			ROHDE&SCHWARZ			ZEICHN.-NR. 1100.2300.01 S — BLATT-NR. 5 –
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET CMU		REG.I.V. 1100.0008 — ERSTE Z. 1100.1804.01

FUER DIESE UNTERLAGE BEHALTEN WIR UNS ALLE RECHTE VOR

DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR



DARSTELLUNG SEITE B
VIEW ON SIDE B

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN UEBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
04.00			

1CMK	DATUM	NAME
BEARB.		NG
GEPR.		NG
NORM		
PLOTT	99-02-05	GUDER

ROHDE&SCHWARZ
ZU GERAET CMU

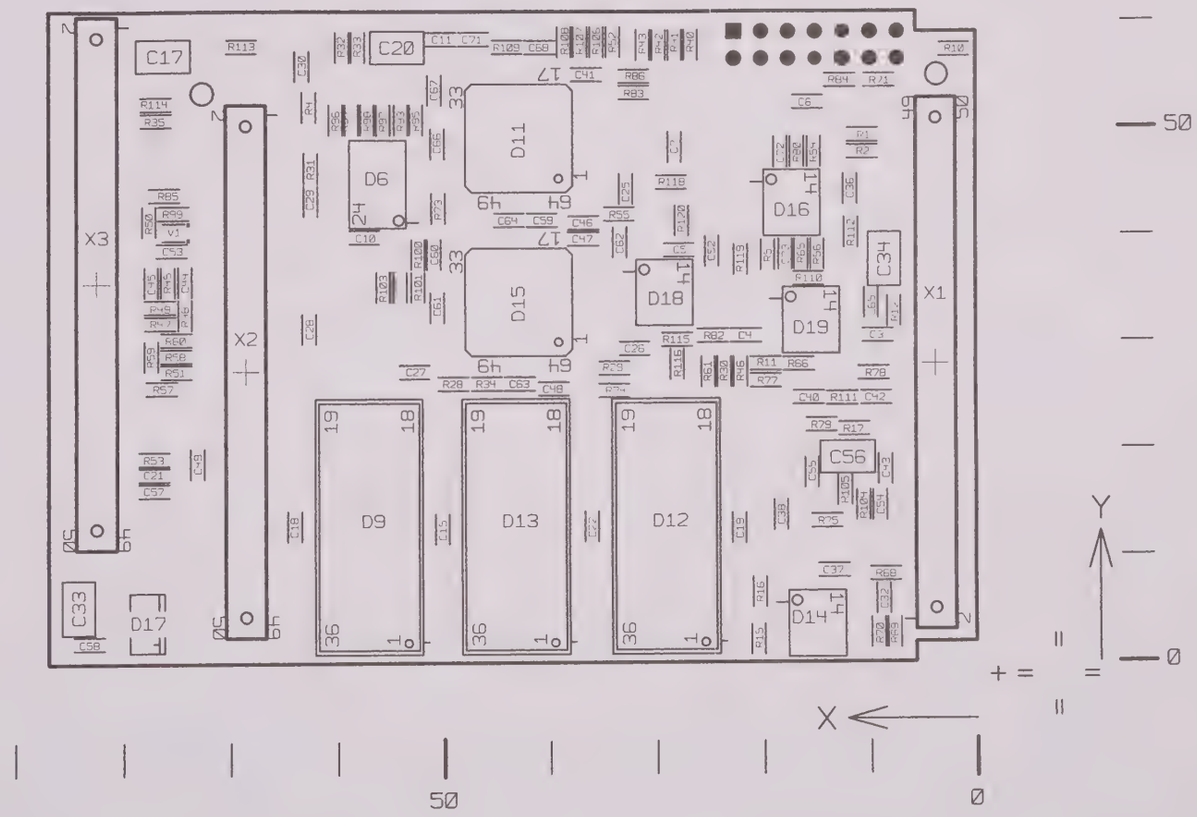
BENENNUNG
DDC MODULE

ZEICHN.-NR.
1100.2300.01 D

BLATT-NR. 1+
V. BL.

REG.I.V. 1100.0008
ERSTE Z. 1100.1804

AUCH DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR



DARSTELLUNG SEITE A
VIEW ON SIDE A

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN UEBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
CH.00			

	DATUM	NAME
1CMK		
BEARB.		NG
GEPR.		NG
NORM		
PLOTT	99-02-05	GUDER

ROHDE&SCHWARZ
ZU GERAET CMU

BENENNUNG
DDC MODULE

ZEICHN.-NR.
1100.2300.01 D

BLATT-NR. 2-
V. BL.

REG.I.V. 1100.0008
ERSTE Z. 1100.1804

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
.	XX VARIANTENERKLAERUNG IDENTIFICATION OF MODELS				
C1	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C2	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C3	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C4	CC 68PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	0009.9746.00	MURATA	GRM39COG***F50ZPT	
C5	CC 68PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	0009.9746.00	MURATA	GRM39COG***F50ZPT	
C6	CC 4,7PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	0009.4538.00	MURATA	GRM39COG***B50ZPT	
C7	CC 4,7PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	0009.4538.00	MURATA	GRM39COG***B50ZPT	
C8	CC 3,9PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	0009.4509.00	MURATA	GRM39COG***B50ZPT	
C9 ..17	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C18	CC 3,9PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	0009.4509.00	MURATA	GRM39COG***B50ZPT	
C19 ..26	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C27	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C28 ..38	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C39	CC 8,2NF+-10%50V X7R 1206 CERAMIC CHIP KONDENSATOR	CC 0007.3257.00	PHILIPS_CO	2238 581 16626	
C40 ..46	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C47	CC 18PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	0048.3622.00	MURATA	GRM39COG***F50ZPT	
C48	CC 1,0PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	0009.8304.00	MURATA	GRM39COG***B50ZPT	
C49 ..58	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C59 ..62	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C63 ..66	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C100	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C120 ..124	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C150 ..154	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C200	CE 10UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7246.00	SPRAGUE	293D 106 X9 025 D2W	
C201	CE 10UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7246.00	SPRAGUE	293D 106 X9 025 D2W	
C230	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C231	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C330	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C331	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C340	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C341	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
D1	BC DSP56303PV66 SIGNPROC IC DIG SIGN PROCESSOR	0048.3500.00	MOTOROLA	DSP56303PV66 / 3J22A	
D2	BL 74LVT08DB 4X2AND 3.3V QUAD 2-IN AND GATE	0048.3180.00	PHILIPS_SE	74LVT08(DB)	
D3	BC X24164S8I-2.7 IC MEMORY	0048.4258.00	XICOR	X24164S G	
D10	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 02	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
..10					
..10					
..10					
..12					

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
D12	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 03	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D12	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 04	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D12	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 05	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D20	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 03	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
..20 ..22					
D22	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 05	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D30	BC IDT72225LB 1KX18 FIFO IC FIFO MEMORY	1097.6140.00	IDT	(IDT)72225LB15PF	
D31	BC IDT72225LB 1KX18 FIFO IC FIFO MEMORY	1097.6140.00	IDT	(IDT)72225LB15PF	
D32	BL 74LVC377DB 8XD-FF EN IC OCTAL D-FF	0048.4164.00	PHILIPS_SE	(74)LVC377(DB)	
D40 ..42	BL 74LVT574DB 8XD-FF 3S OCTAL D-TYPE FLIP-FLOP 3S	0048.3316.00	PHILIPS_SE	74LVT574DB	
D43	BL 74LVT04DB 6XINV. 3.3V HEX INVERTER	0048.3174.00	PHILIPS_SE	74LVT04DB	
D50	BC EPM7128STC100-10 EPLD IC PROG,LOGIC	1100.4649.00	ALTERA	EPM7128STC100-10	
L1	LD 100UH 10% 0,06A 1210 SMD-INDUCTOR	LD 0007.9261.00	SIEMENS	B82422-A1104-J(K)100	
L2	LD 100UH 10% 0,06A 1210 SMD-INDUCTOR	LD 0007.9261.00	SIEMENS	B82422-A1104-J(K)100	
N40	BJ MX566AKCWG 1X12-DAC 12-BIT D/A CONVERTER	1100.4603.00	MAXIM	MX566AKCWG	
N41	BJ MX566AKCWG 1X12-DAC 12-BIT D/A CONVERTER	1100.4603.00	MAXIM	MX566AKCWG	
N42	BO OP297GS 2X PREC OPAMP IC DUALOPAMP	6071.9467.00	ANALOG_DEV	OP297GS	
N43	BO AD825 AR FET OPAMP IC FET OPAMP	1100.2023.00	ANALOG_DEV	AD825AR	
N44	BO AD825 AR FET OPAMP IC FET OPAMP	1100.2023.00	ANALOG_DEV	AD825AR	
N45	BO AD822BR 2XFET OPAMP IC DUAL OPAMP	2043.0934.00	ANALOG_DEV	AD822BR	
R1 ..3	RG 2K74 +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8410.00	DRALORIC	CR 0603	
R4	RN 10K X4 5% SMD1206 RESISTOR NETWORK	0048.4441.00	PHILIPS_CO	2350 034 10103	
R5	RN 10K X4 5% SMD1206 RESISTOR NETWORK	0048.4441.00	PHILIPS_CO	2350 034 10103	
R6	RG 2K74 +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8410.00	DRALORIC	CR 0603	
R7	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R8	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R9	RG 2K74 +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8410.00	DRALORIC	CR 0603	
R10	RG 2K74 +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8410.00	DRALORIC	CR 0603	
R11	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R12	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R13	RG 22R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6901.00	DRALORIC	CR 0603	
R14	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R15	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R16	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R17	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	

Für diese Unterlage behalten wir uns alle Rechte vor.

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R18	RG 470R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R19	RG 470R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R20	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R21	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R22	RG 182 OHM+-1%TK200 0603 SMD-RESISTOR EIA0603	0009.9130.00	DRALORIC	CR 0603	
R23	RG 470R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R24 ..26	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R27	RG 182 OHM+-1%TK200 0603 SMD-RESISTOR EIA0603	0009.9130.00	DRALORIC	CR 0603	
R28 ..34	RG 470R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R35	RG 2K2 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7008.00	DRALORIC	CR 0603	
R36 ..39	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R40	RG 10R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5328.00	DRALORIC	CR 0603	
R41	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R42	RG 10R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5328.00	DRALORIC	CR 0603	
R43 ..51	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R52 ..55	RG 51,0 OHM+-1%TK200 0603 SMD-RESISTOR EIA0603	0009.9030.00	DRALORIC	CR 0603	
R56	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R57	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R58	CC 470PF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4896.00	MURATA	GRM39X7R***K5C500PT*	
R59	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R60	RG 10,0KOH+-0,1%TK25 1206 SMD-RESISTOR	0009.7666.00	PHILIPS_CO	MPC 01	
R61	RG 10,0KOH+-0,1%TK25 1206 SMD-RESISTOR	0009.7666.00	PHILIPS_CO	MPC 01	
R62	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R63	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R64	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R65	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R66	RG 470R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R67	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R68	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R69	RG 470R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R70	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R71	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R72	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R73	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R74	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R75	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R76	CC 470PF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4896.00	MURATA	GRM39X7R***K5C500PT*	
R77	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	

Für diese Unterlage behalten wir uns alle Rechte vor.

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R78	RG 47OR +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R79	RG 2K2 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7008.00	DRALORIC	CR 0603	
R80	RG 47OR +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R81	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R82	RG 6K8 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7037.00	DRALORIC	CR 0603	
R83	RG 2K2 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7008.00	DRALORIC	CR 0603	
R84	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R100	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R100	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R101	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R101	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R102	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R102	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R103	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R103	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 O OHM	
V1	AE BZX284-B3V9 0,4W ZDI ZENER DIODE	0048.3880.00	PHILIPS_SE	BZX284-B3V9	
V2	AE BZX284-B3V9 0,4W ZDI ZENER DIODE	0048.3880.00	PHILIPS_SE	BZX284-B3V9	
V3	AD BAS216 75V UDI HIGHSPEED SWITCHING DIODE	0010.9346.00	PHILIPS_SE	BAS216	
V4 ..6	AM BF998 N-D DG MOSF DUAL GATE MOSFET	1051.4522.00	SIEMENS	BF998(-F1129)	
V7	AE BZX284-B2V7 0,4W ZDI ZENER DIODE	0048.3345.00	PHILIPS_SE	BZX284-B2V7	
V8	AK BFT92 P 15V 25MA 5 GHZ WIDEBAND TRANSISTOR	1075.4068.00	SIEMENS	BFT92 (-F1062)	
V9	AD BAS216 75V UDI HIGHSPEED SWITCHING DIODE	0010.9346.00	PHILIPS_SE	BAS216	
V10	AE HSMS2810 SCHOTTKY SCHOTTKY DIODE	0520.7340.00	HEWLETT_PA	HSMS-2810	
X1	FP BUCHSENLEISTE 50P. SMD CONNECTOR 50P SMD	FP 1065.8702.00	3M	150250-2020TB	
X2	FP BUCHSENLEISTE 50P. SMD CONNECTOR 50P SMD	FP 1065.8702.00	3M	150250-2020TB	
X8	FP STECKERLEISTE 14POL. CONNECTOR 14P	FP 6040.4605.00			
X50	FP STECKERLEISTE 8P. R=2 CONNECTOR	FP 4052.5509.00	BERG_ELEKT	87131-508	

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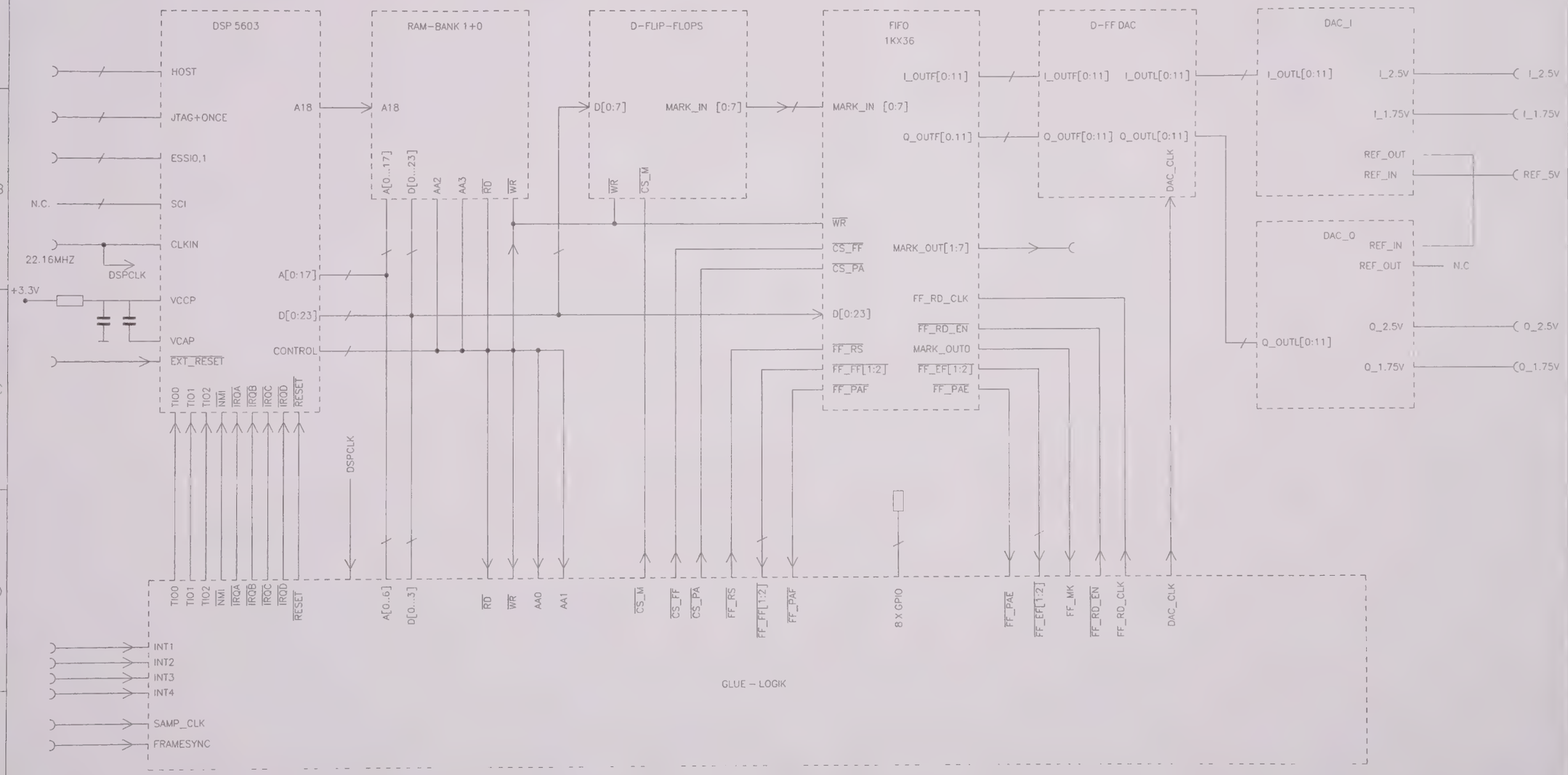
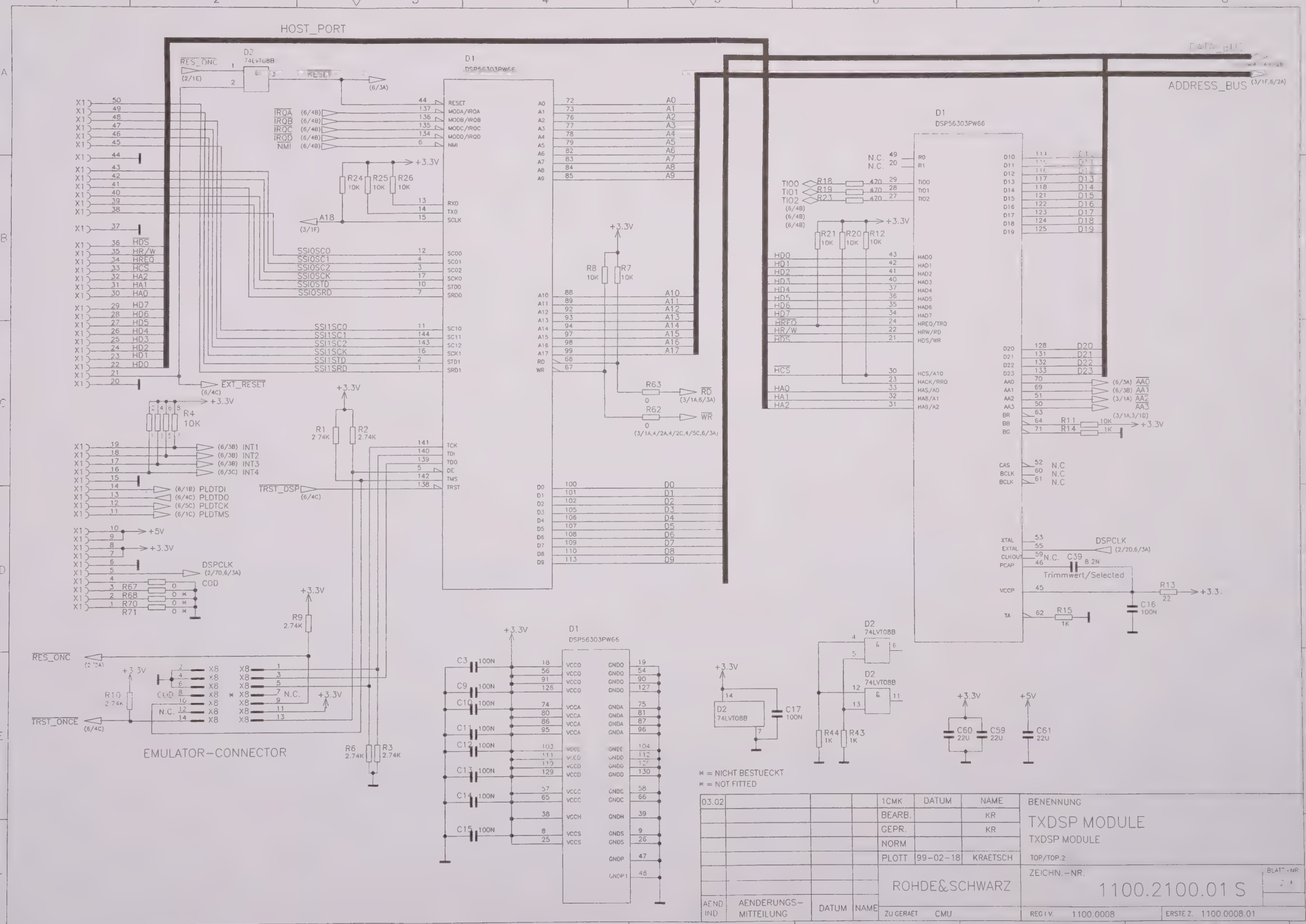
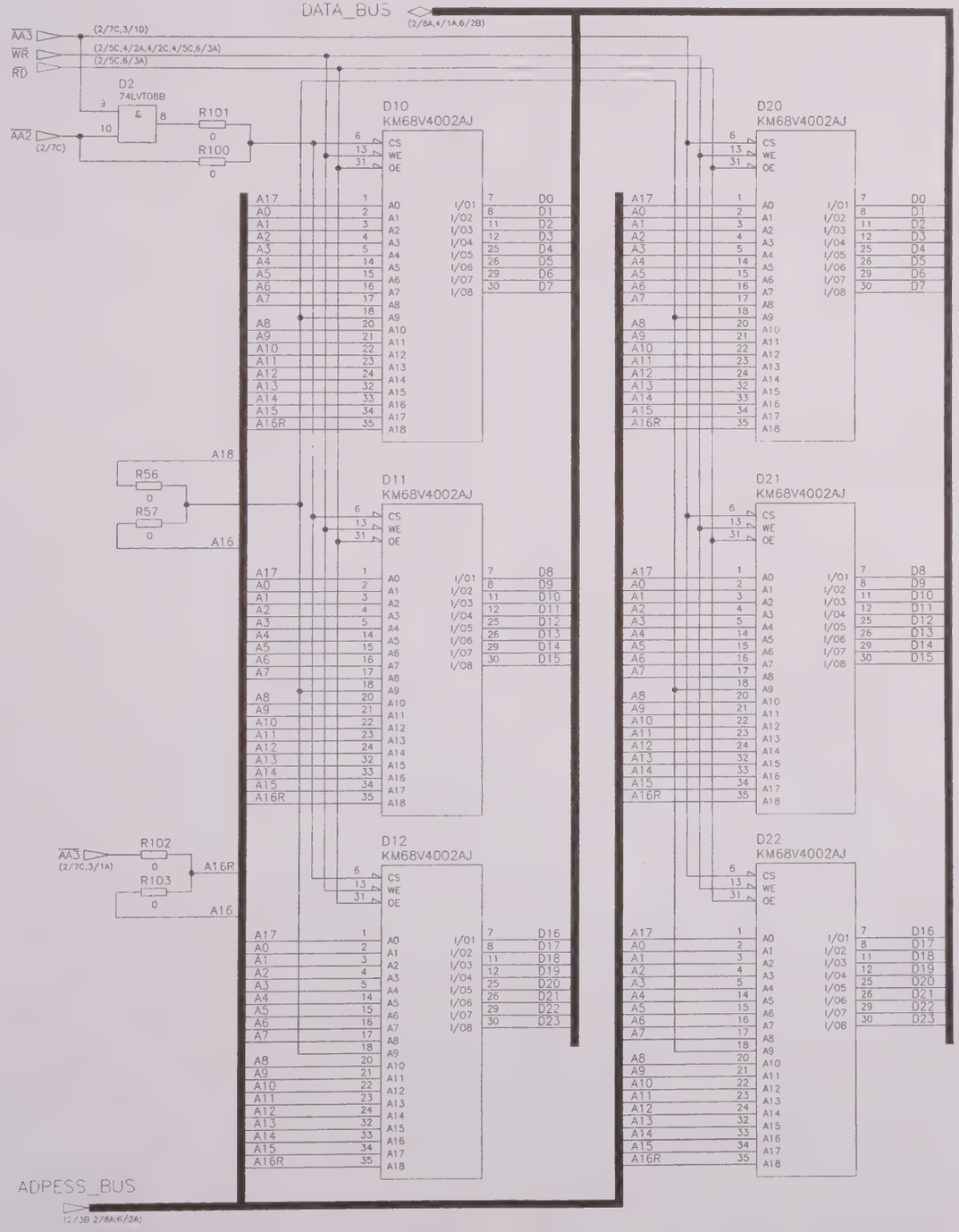


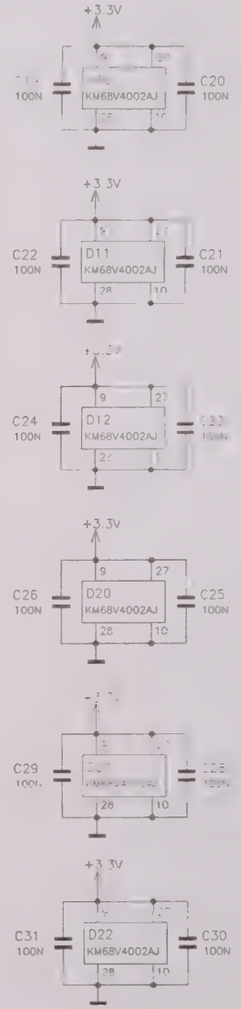
ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

03.00				1CMK	DATUM	NAME	BENENNUNG
				BEARB.		NG	TXDSP MODULE
				GEPR.		NG	TXDSP MODULE
				NORM			
				PLOTT	98-09-25	NEUGEBAU	TOP/TOP.1
				ROHDE&SCHWARZ			ZEICHN.-NR. 1100.2100.01 S
AEND. IND	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET CMU			REG. V 1100.0008 ERSTE Z 1100.0008.01

BEHALTEN WIR UNS ALLE RECHTE VOR


HOST_PORT
ADDRESS_BUS
D1
DSP56303PW66
D2
74LVT08B
RES_ONC
EXT_RESET
TRST_DSP
TRST_ONCE
DSPCLK
EMULATOR-CONNECTOR
Trimmwert/Selected
* = NICHT BESTUECKT
* = NOT FITTED
03.02
1CMK
DATUM
NAME
BEARB.
KR
GEPR.
KR
NORM
PLOTT
99-02-18
KRAETSCH
BENENNUNG
TXDSP MODULE
TXDSP MODULE
TOP/TOP.2
ROHDE&SCHWARZ
ZEICHN.-NR.
1100.2100.01 S
BLATT-NR
AEND IND
AENDERUNGS-MITTEILUNG
DATUM
NAME
ZU GERAET
CMU
REG I V.
1100.0008
ERSTE Z.
1100.0008.01





VARIANTE MODEL	D10 D11 D12	D20 D21 D22	R56	R57	R100	R101	R102	R103
VAR02 3MBIT MOD02	128KX8	*	*	*	*	O	O	*
VAR03 6MBIT MOD03	128KX8	128KX8	*	*	O	*	*	O
VAR04 12MBIT MOD04	512KX8	*	*	O	*	O	O	*
VAR05 24MBIT MOD05	512KX8	512KX8	O	*	O	*	*	O

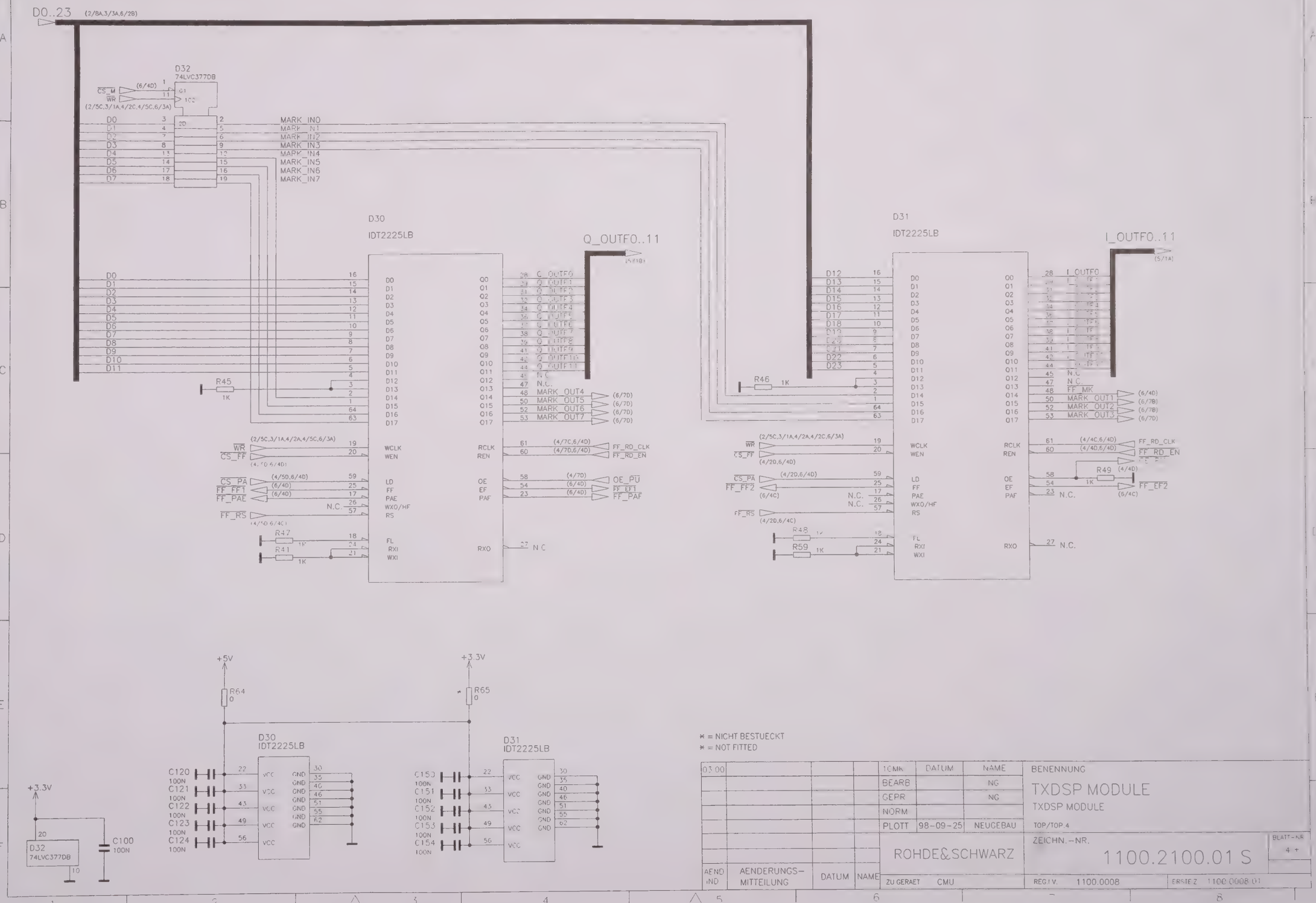
* = NICHT BESTUECKT / NOT FITTED
O = BESTUECKT/FITTED

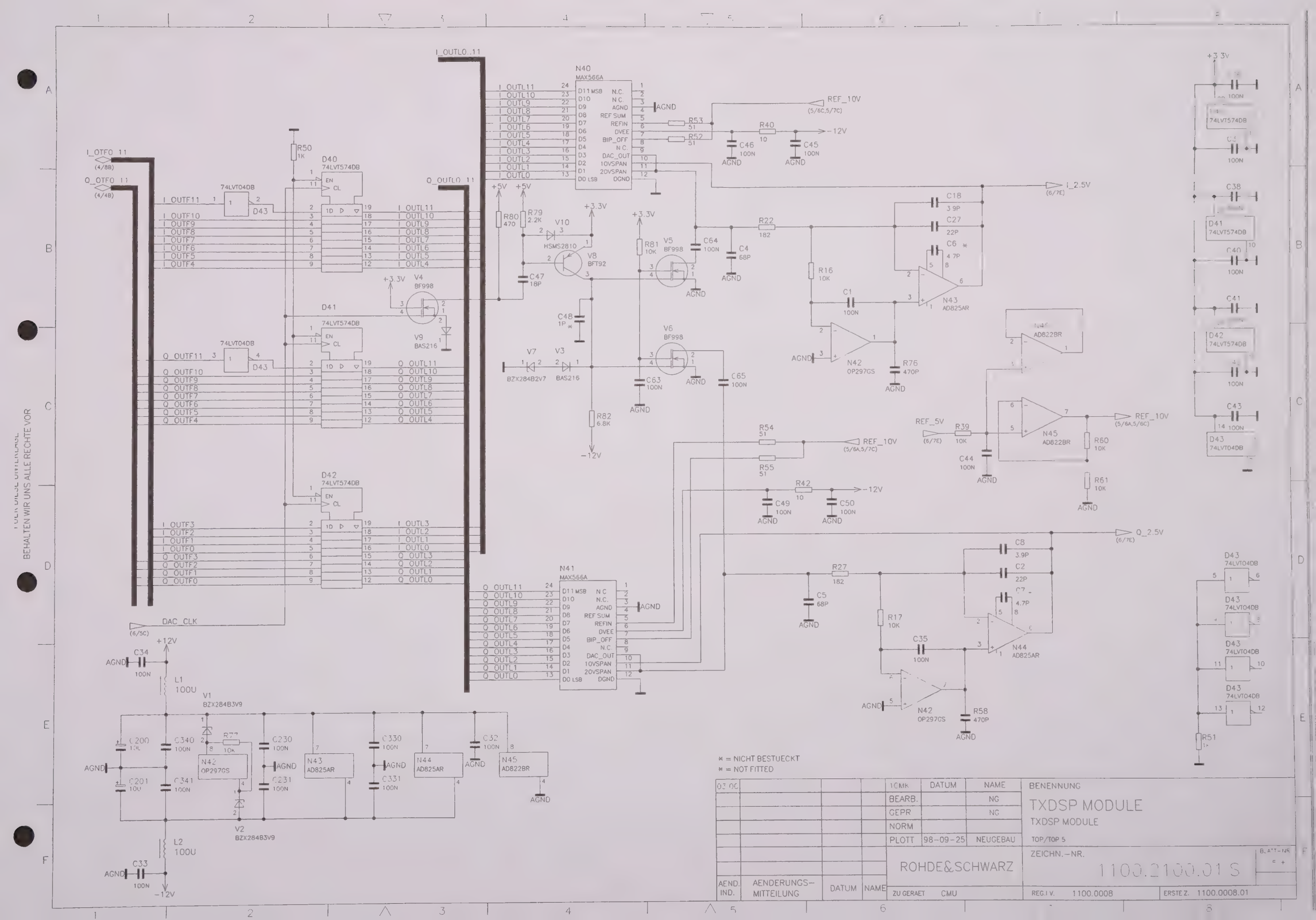
* = NICHT BESTUECKT
* = NOT FITTED

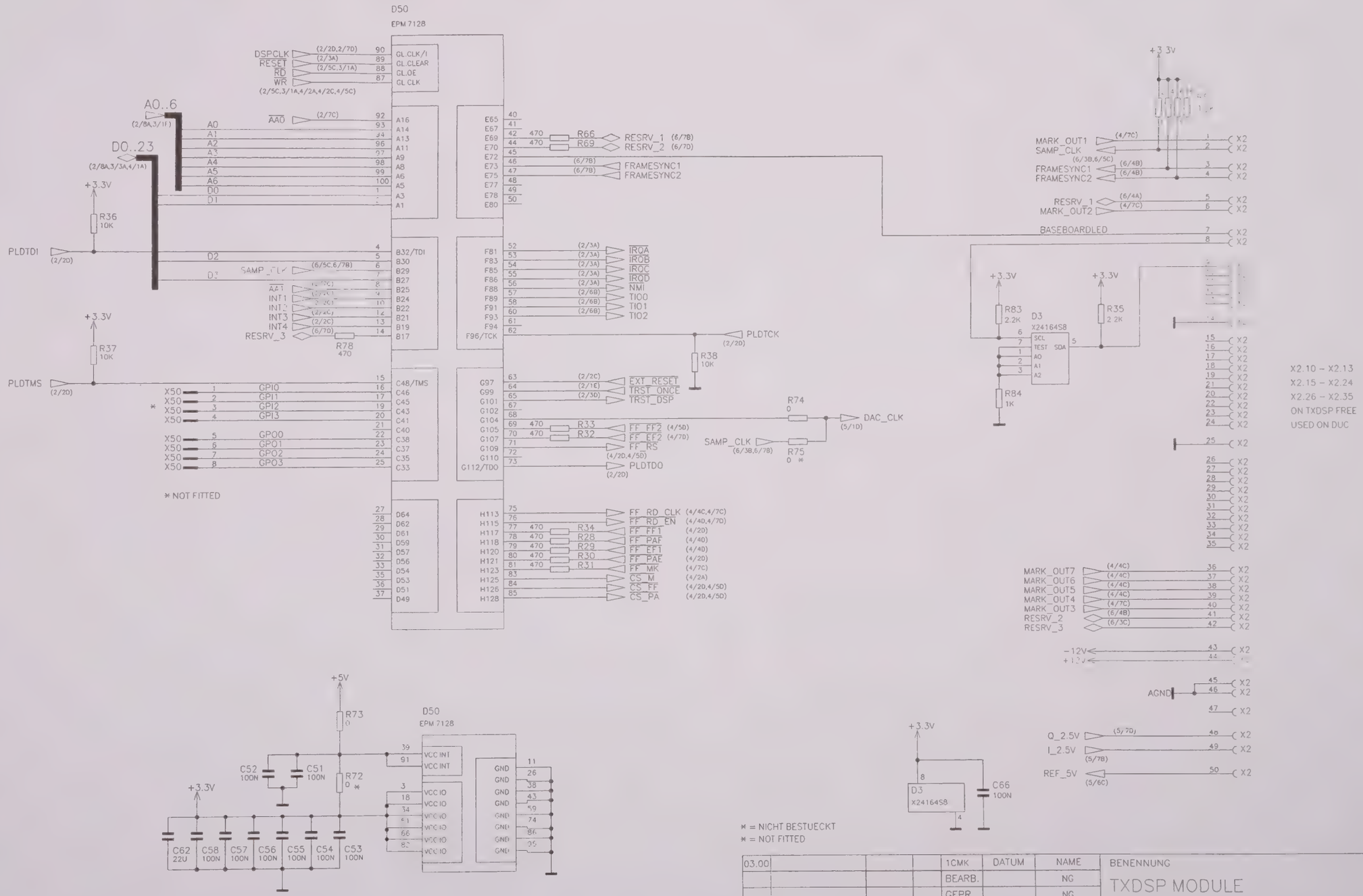
03.00				1CMK	DATUM	NAME	BENENNUNG
				BEARB.		NG	TXDSP MODULE
				GEPR.		NG	TXDSP MODULE
				NORM			TOP: TOP 3
				PLOTT	98-09-25	NEUGEBAU	
				ROHDE&SCHWARZ			ZEICHN.-NR 1100.2100.01 S
AEND IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET CMU			REG.I.V. 1100 0008 ERSTE Z. 1100.0008.01

BLATT NR 3 +

BEHALTEN WIR UNS ALLE RECHTE VOR


D0..23
D32
74LVC377DB
D30
IDT2225LB
Q_OUTF0..11
D31
IDT2225LB
I_OUTF0..11
R45
R46
R47
R41
R48
R59
R49
R64
R65
+5V
+3.3V
C100
100N
* = NICHT BESTUECKT
* = NOT FITTED
BEHALTEN WIR UNS ALLE RECHTE VOR
BENENNUNG
TXDSP MODULE
TXDSP MODULE
TOP/TOP.4
ROHDE&SCHWARZ
ZEICHN.-NR.
1100.2100.01 S
ZU GERAET CMU
REG.I.V. 1100.0008
ERSTE Z 1100.0008.01
AENDERUNGS-MITTEILUNG
DATUM
NAME
BEARB
GEPR
NORM
PLOTT
98-09-25
NEUGEBAU

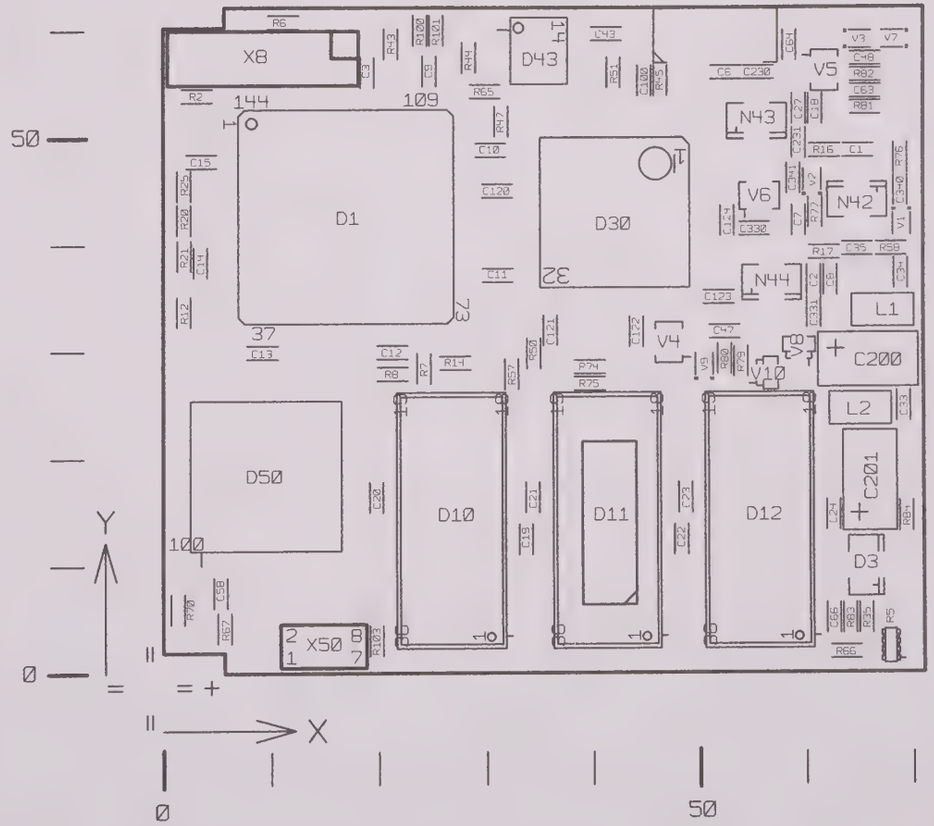

I_OUTL0..11
N40
MAX566A
REF_10V
(5/6C,5/7C)
-12V
I_2.5V
(6/7E)
+3.3V
+5V
R50 1K
D40 74LVT574DB
74LVT04DB
D43
I_OUTF11
I_OUTF10
I_OUTF9
I_OUTF8
I_OUTF7
I_OUTF6
I_OUTF5
I_OUTF4
I_OUTL11
I_OUTL10
I_OUTL9
I_OUTL8
I_OUTL7
I_OUTL6
I_OUTL5
I_OUTL4
I_OTF0_11
(4/8B)
O_OTF0_11
(4/4B)
O_OUTL0_11
D41 74LVT574DB
D42 74LVT574DB
Q_OUTF11
Q_OUTF10
Q_OUTF9
Q_OUTF8
Q_OUTF7
Q_OUTF6
Q_OUTF5
Q_OUTF4
Q_OUTF3
Q_OUTF2
Q_OUTF1
Q_OUTF0
Q_OUTL11
Q_OUTL10
Q_OUTL9
Q_OUTL8
Q_OUTL7
Q_OUTL6
Q_OUTL5
Q_OUTL4
Q_OUTL3
Q_OUTL2
Q_OUTL1
Q_OUTL0
DAC_CLK
(6/5C)
N41
MAX566A
R53 51
R52 51
R40 10
C46 100N
C45 100N
R80 470
R79 2.2K
V10 HSMS2810
V8 BFT92
V5 BF998
V4 BF998
V9 BAS216
V7 BZX284B2V7
V3 BAS216
V6 BF998
R81 10K
C64 100N
C4 68P
C47 18P
C48 1P *
C63 100N
C65 100N
R82 6.8K
R22 182
C18 3.9P
C27 22P
C6 4.7P *
R16 10K
C1 100N
R76 470P
N43 AD825AR
N42 OP297GS
N45 AD822BR
R39 10K
C44 100N
R60 10K
R61 10K
REF_5V
(6/7E)
R54 51
R55 51
R42 10
C49 100N
C50 100N
R27 182
C5 68P
C8 3.9P
C2 22P
C7 4.7P *
R17 10K
C35 100N
R58 470P
N44 AD825AR
C34 100N
L1 100U
V1 BZX284B3V9
V2 BZX284B3V9
L2 100U
C33 100N
C200 10U
C201 10U
C340 100N
C341 100N
R77 10K
C230 100N
C231 100N
C330 100N
C331 100N
C32 100N
C38 100N
C40 100N
C41 100N
C43 100N
R51
AGND
* = NICHT BESTUECKT
* = NOT FITTED
ROHDE&SCHWARZ
BENENNUNG
TXDSP MODULE
TXDSP MODULE
TOP/TOP 5
ZEICHN.-NR.
1100.2100.01 S
BLATT-NR
ZU GERAET CMU
REG.I V. 1100.0008
ERSTE Z. 1100.0008.01
AEND. IND.
AENDERUNGS-MITTEILUNG
DATUM
NAME
BEARB.
GEPR
NORM
PLOTT 98-09-25 NEUGEBAU
NG



03.00				1CMK	DATUM	NAME	BENENNUNG
				BEARB.		NG	TXDSP MODULE
				GEPR.		NG	TXDSP MODULE
				NORM			
				PLOTT	98-09-25	NEUGEBAU	TOP/TOP 6
				ROHDE&SCHWARZ			ZEICHN.-NR. 1100.2100.01 S
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET CMU			REG.I.V. 1100.0008 ERSTE Z. 1100.0008.01

BEHALTEN WIR UNS ALLE RECHTE VOR

FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR



DARSTELLUNG SEITE B
VIEW ON SIDE B

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN UEBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
03.00			

	DATUM	NAME
1CMK		
BEARB.		NG
GEPR.		NG
NORM		
PLOTT	98-09-25	NEUGEBAU

ROHDE&SCHWARZ
ZU GERAET CMU

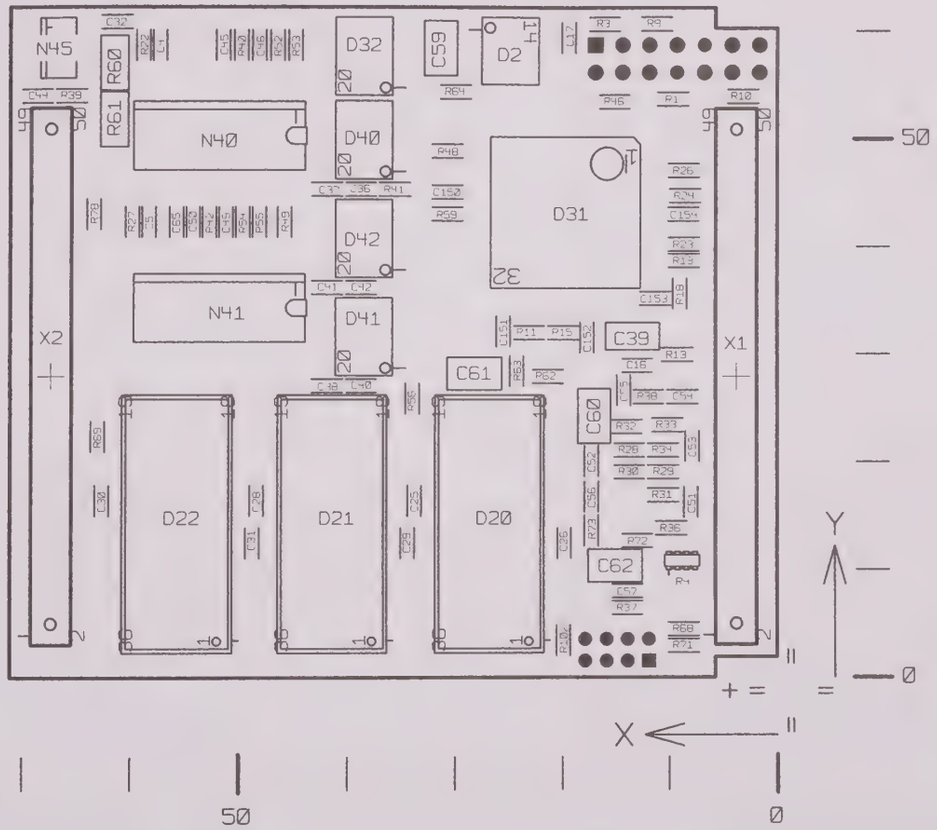
BENENNUNG
TXDSP MODULE
TXDSP MODULE

ZEICHN.-NR.
1100.2100.01 D

BLATT-NR. 1+
V. BL.

REG.I.V. 1100.0008
ERSTE Z. 1100.0008

FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR



DARSTELLUNG SEITE A
VIEW ON SIDE A

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN UEBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
03.00			

	1CMK	DATUM	NAME
BEARB.			NG
GEPR.			NG
NORM			
PLOTT	98-09-25		NEUGEBAU

ROHDE&SCHWARZ
ZU GERAET CMU

BENENNUNG
TXDSP MODULE
TXDSP MODULE

ZEICHN.-NR.
1100.2100.01 D

BLATT-NR. 2-
V. BL.

REG.I.V. 1100.0008
ERSTE Z. 1100.0008

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
.	XX VARIANTENERKLAERUNG IDENTIFICATION OF MODELS				
C1	CC 10NF+-10% 50VHDK 0603	CC 0009.4844.00	MURATA	GRM39X7R***K5C50OPT*	
..5	SMD-CERAMIC-CAPACITOR				
C6	CC 68PF+-1% 50VNPO 0603	0009.9746.00	MURATA	GRM39C0G***F50ZPT	
..8	SMD-CERAMIC-CAPACITOR				
C9	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C10	CC 15PF+-1% 50VNPO 0603	0009.8227.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
C11	CC 15PF+-1% 50VNPO 0603	0009.8227.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
C12	CC 100PF+-1% 50VNPO 0603	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
C13	CC 10NF+-10% 50VHDK 0603	CC 0009.4844.00	MURATA	GRM39X7R***K5C50OPT*	
..16	SMD-CERAMIC-CAPACITOR				
C17	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C18	CC 100PF+-1% 50VNPO 0603	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
C19	CC 2,7PF0,1PF50V NPO 0603	0009.8291.00	MURATA	GRM39C0G***B50ZPT	
	SMD-CERAMIC-CAPACITOR				
C20	CC 2,7PF0,1PF50V NPO 0603	0009.8291.00	MURATA	GRM39C0G***B50ZPT	
	SMD-CERAMIC-CAPACITOR				
C21	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C22	CC 10NF+-10% 50VHDK 0603	CC 0009.4844.00	MURATA	GRM39X7R***K5C50OPT*	
	SMD-CERAMIC-CAPACITOR				
C23	CC 10NF+-10% 50VHDK 0603	CC 0009.4844.00	MURATA	GRM39X7R***K5C50OPT*	
	SMD-CERAMIC-CAPACITOR				
C24	CC 18PF+-1% 50VNPO 0603	0048.3622.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
C25	CC 22PF+-1% 50VNPO 0603	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
C26	CC 10NF+-10% 50VHDK 0603	CC 0009.4844.00	MURATA	GRM39X7R***K5C50OPT*	
..28	SMD-CERAMIC-CAPACITOR				
C29	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..31	CERAMIC CHIP CAPACITOR				
C32	CC 10NF+-10% 50VHDK 0603	CC 0009.4844.00	MURATA	GRM39X7R***K5C50OPT*	
	SMD-CERAMIC-CAPACITOR				
C33	CC 2,2NF+-1% 50V NPO 1206	0010.2964.00	MURATA	GRM42-6C0G222F50PT	
	SMD-CERAMIC CAPACITOR				
C34	CC 10NF+-10% 50VHDK 0603	CC 0009.4844.00	MURATA	GRM39X7R***K5C50OPT*	
	SMD-CERAMIC-CAPACITOR				
C35	CC 2,2NF+-1% 50V NPO 1206	0010.2964.00	MURATA	GRM42-6C0G222F50PT	
	SMD-CERAMIC CAPACITOR				
C36	CC 10NF+-10% 50VHDK 0603	CC 0009.4844.00	MURATA	GRM39X7R***K5C50OPT*	
	SMD-CERAMIC-CAPACITOR				
C37	CC 22PF+-1% 50VNPO 0603	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
C38	CC 22PF+-1% 50VNPO 0603	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
C39	CC 100PF+-1% 50VNPO 0603	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
C40	CC 1NF+-1% 50V NPO 1206	CC 0007.7398.00	AVX	1206 5A 102 FAT00J	
	SMD CERAMIC CAPACITOR				
C41	CC 22PF+-1% 50VNPO 0603	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
C42	CC 3,3NF+-1% 50V NPO 1206	0010.2970.00	MURATA	GRM42-6C0G332F50PT	
	SMD-CERAMIC CAPACITOR				
C43	CC 2,7NF+-10%50V X7R 1206	CC 0007.3228.00	PHILIPS_CO	2238 581 16619	
	CERAMIC CHIP CAPACITOR				
C44	CC 27PF+-1% 50VNPO 0603	0010.9323.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
C45	CC 56PF+-1% 50VNPO 0603	1093.6417.00	MURATA	GRM39C0G***F50ZPT	
	SMD CERAMIK CAPACITOR				
C46	CC 39OPF+-1%50V NPO 1206	CC 0099.8880.00	AVX	1206 5 A 391 F 3	
	CERAMIC CHIP CAPACITOR				
C47	CC 68OPF+-1% 50V NPO 1206	CC 0007.7375.00	MURATA	GRM42-6C0G 681F 50PT	
	CERAMIC CHIP CAPACITOR				
C48	CC 1,2NF+-1% 50V NPO 1206	CC 0007.7400.00	AVX	1206 5A 122FAT00J	
	CERAMIC CHIP CAPACITOR				
C49	CC 47PF+-1% 50VNPO 0603	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
C50	CC 47PF+-1% 50VNPO 0603	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C51	CC 1NF+-1% 50V NPO 1206 SMD CERAMIC CAPACITOR	CC 0007.7398.00	AVX	1206 5A 102 FAT00J	
C52	CC 56PF+-1% 50VNPO 0603 SMD CERAMIK CAPACITOR	1093.6417.00	MURATA	GRM39C0G***F50ZPT	
C53	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C54	CC 33PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	0048.3639.00	MURATA	GRM39C0G***B50ZPT	
C55	CC 33PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	0048.3639.00	MURATA	GRM39C0G***B50ZPT	
C56	CC 680PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7375.00	MURATA	GRM42-6C0G 681F 50PT	
C57 ..60	CC 1NF+-1% 50V NPO 1206 SMD CERAMIC CAPACITOR	CC 0007.7398.00	AVX	1206 5A 102 FAT00J	
C61 ..63	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C64	CC 470PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8515.00	AVX	1206 5 A 471 F 3	
C65	CC 470PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8515.00	AVX	1206 5 A 471 F 3	
C66	CC 120PF+-1% 50V NPO 0603 SMD-CERAMIC-CAPACITOR	1097.6411.00	MURATA	GRM39C0G***F50ZPT	
C67	CC 120PF+-1% 50V NPO 0603 SMD-CERAMIC-CAPACITOR	1097.6411.00	MURATA	GRM39C0G***F50ZPT	
C68	CC 270PF+-10% 50VHDK 0603 SMD CERAMIC CAPACITOR	1097.6370.00	VITRAMON	VJ0603Y***KXAT	
C69	CC 270PF+-10% 50VHDK 0603 SMD CERAMIC CAPACITOR	1097.6370.00	VITRAMON	VJ0603Y***KXAT	
C70	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C71	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C72	CC 39PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	0009.9730.00	MURATA	GRM39C0G***F50ZPT	
C73 ..82	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C83	CC 390PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8880.00	AVX	1206 5 A 391 F 3	
C84	CC 27PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	0010.9323.00	MURATA	GRM39C0G***F50ZPT	
C85	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C86	CC 3,3NF+-1% 50V NPO 1206 SMD-CERAMIC CAPACITOR	0010.2970.00	MURATA	GRM42-6C0G332F50PT	
C87	CC 1,2NF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7400.00	AVX	1206 5A 122FAT00J	
C88	CC 82PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	1097.6363.00	MURATA	GRM39C0G***F50ZPT	
C89	CC 82PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	1097.6363.00	MURATA	GRM39C0G***F50ZPT	
C90	CC 56PF+-1% 50VNPO 0603 SMD CERAMIK CAPACITOR	1093.6417.00	MURATA	GRM39C0G***F50ZPT	
C91	CC 56PF+-1% 50VNPO 0603 SMD CERAMIK CAPACITOR	1093.6417.00	MURATA	GRM39C0G***F50ZPT	
C92	CC 2,7NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.3228.00	PHILIPS_CO	2238 581 16619	
C93	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C94	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C95	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C96 ..98	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C99	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C100	CC 330PF+-5% 50V HDK 0603 SMD CERAMIC CAPACITOR	1097.6205.00	MURATA	GRM39X7R331J50PT	
C101	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
D1	BC X24164S8I-2.7 IC MEMORY	0048.4258.00	XICOR	X24164S G	
D5	BO AD835AR 250MHZ 4QMULTI 4-QUADRANT MULTIPLIER	1085.1632.00	ANALOG_DEV	AD835AR	
D6	BO AD835AR 250MHZ 4QMULTI 4-QUADRANT MULTIPLIER	1085.1632.00	ANALOG_DEV	AD835AR	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
L1	LD 3,3UH 10% 0,20A 1210 SMD-INDUCTOR	LD 0856.7089.00	SIEMENS	B82422-A1332-J(K)100	
L2	LD 100NH 1%OR26 0.8A 1206 CERAMIC CHIP COIL	0048.4612.00	COILCRAFT	1206CS-101XFBC	
L3	LD 15NH 5%OR1 1A 1206 CERAMIC CHIP COIL	0048.6138.00	COILCRAFT	1206CS-150XJBC	
L4	LD 120NH 1%OR26 0.8A 1206 CERAMIC CHIP COIL	0048.4629.00	COILCRAFT	1206CS-121XFBC	
L5	LD 820NH 1% 0,4 A 1206 CERAMIC CHIP COIL	0048.5619.00	COILCRAFT	1206CS-821XFBC	
L6	LD 470NH 1%R 0.59A 1206 CERAMIC CHIP COIL	0048.5183.00	COILCRAFT	1206CS-471XFBC	
L7	LD 470NH 1%R 0.59A 1206 CERAMIC CHIP COIL	0048.5183.00	COILCRAFT	1206CS-471XFBC	
L12	LD 100UH 10% 0,06A 1210 SMD-INDUCTOR	LD 0007.9261.00	SIEMENS	B82422-A1104-J(K)100	
L13	LD 100UH 10% 0,06A 1210 SMD-INDUCTOR	LD 0007.9261.00	SIEMENS	B82422-A1104-J(K)100	
L14	LD 820NH 10% 0,14A 1210 SMD-INDUCTOR	0009.6424.00	SIEMENS	B82422-A3821-J(K)100	
N1	BO NE5534D OPAMP OPERATIONAL AMPLIFIER	0815.7555.00	SIGNETICS	NE5534(D)	
N2	BO NE5534D OPAMP OPERATIONAL AMPLIFIER	0815.7555.00	SIGNETICS	NE5534(D)	
N3	BO AD829JR 1XLOLN OPAMP IC OPAMP	1036.4254.00	ANALOG_DEV	AD829JR	
N4	BO AD829JR 1XLOLN OPAMP IC OPAMP	1036.4254.00	ANALOG_DEV	AD829JR	
N5	BO NE5534D OPAMP OPERATIONAL AMPLIFIER	0815.7555.00	SIGNETICS	NE5534(D)	
N6	BO NE5534D OPAMP OPERATIONAL AMPLIFIER	0815.7555.00	SIGNETICS	NE5534(D)	
N7	BO AD829JR 1XLOLN OPAMP IC OPAMP	1036.4254.00	ANALOG_DEV	AD829JR	
N8	BO AD829JR 1XLOLN OPAMP IC OPAMP	1036.4254.00	ANALOG_DEV	AD829JR	
N11	BO OP297GS 2X PREC OPAMP IC DUALOPAMP	6071.9467.00	ANALOG_DEV	OP297GS	
N12	BO OP297GS 2X PREC OPAMP IC DUALOPAMP	6071.9467.00	ANALOG_DEV	OP297GS	
R1 ..8	RG 332KOHM+-0,1%TK25 1206 RESISTOR	0010.2941.00	MIKRO-TEK-	CMF 1206	
R9	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R10	RG 10,0KOH+-0,1%TK25 1206 SMD-RESISTOR	0009.7666.00	PHILIPS_CO	MPC 01	
R11	RG 1,1KOHM+-0,1%TK25 1206 SMD-RESISTOR EIA1206	0009.8127.00	PHILIPS_CO	MPC 01	
R12	RG 1,1KOHM+-0,1%TK25 1206 SMD-RESISTOR EIA1206	0009.8127.00	PHILIPS_CO	MPC 01	
R13	RG 15,0KOH+-0,1%TK25 1206 SMD-RESISTOR EIA1206	0009.7766.00	PHILIPS_CO	MPC 01	
R14 ..16	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R17	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R18	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R19	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R20	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R21	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R22	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R23	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R24	RG 16,2OHM+-1%TK200 0603 SMD-RESISTOR EIA0603	0009.8933.00	DRALORIC	CR 0603	
R25	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R26	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R27	RG 200 OHM+-0,1%TK25 1206 CHIP RESISTOR	1110.3074.00	PHILIPS_CO	MPC 01	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R28	RG 1,0 KO +-0,1%TK25 1206 SMD-RESISTOR	0009.7595.00	PHILIPS_CO	MPC 01	
R29	RG 1,0 KO +-0,1%TK25 1206 SMD-RESISTOR	0009.7595.00	PHILIPS_CO	MPC 01	
R30	RG 15,0KOH+-0,1%TK25 1206 SMD-RESISTOR EIA1206	0009.7766.00	PHILIPS_CO	MPC 01	
R31	RG 1,5KOHM+-0,1%TK25 1206 SMD-RESISTOR EIA1206	0009.9975.00	PHILIPS_CO	MPC 01	
R32	RG 1,0 KO +-0,1%TK25 1206 SMD-RESISTOR	0009.7595.00	PHILIPS_CO	MPC 01	
R33	RG 200 OHM+-0,1%TK25 1206 CHIP RESISTOR	1110.3074.00	PHILIPS_CO	MPC 01	
R34	RG 1,5KOHM+-0,1%TK25 1206 SMD-RESISTOR EIA1206	0009.9975.00	PHILIPS_CO	MPC 01	
R35	RG 150 OHM+-0,1%TK25 1206 SMD-RESISTOR EIA1206	0009.8091.00	PHILIPS_CO	MPC 01	
R36	RG 5K62 +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8433.00	DRALORIC	CR 0603	
R37	RG 1,5KOHM+-0,1%TK25 1206 SMD-RESISTOR EIA1206	0009.9975.00	PHILIPS_CO	MPC 01	
R38	RG 10,0KOH+-0,1%TK25 1206 SMD-RESISTOR	0009.7666.00	PHILIPS_CO	MPC 01	
R39	RG 10,0KOH+-0,1%TK25 1206 SMD-RESISTOR	0009.7666.00	PHILIPS_CO	MPC 01	
R40	RG 47K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7072.00	DRALORIC	CR 0603	
R41	RG 33K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7066.00	DRALORIC	CR 0603	
R42	RG 220K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7108.00	DRALORIC	CR 0603	
R43	RG 1,0 KO +-0,1%TK25 1206 SMD-RESISTOR	0009.7595.00	PHILIPS_CO	MPC 01	
R44	RG 1,0 KO +-0,1%TK25 1206 SMD-RESISTOR	0009.7595.00	PHILIPS_CO	MPC 01	
R45	RG 5K62 +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8433.00	DRALORIC	CR 0603	
R46	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R47	RG 3K92 +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8427.00	DRALORIC	CR 0603	
R48	RG 1,5KOHM+-0,1%TK25 1206 SMD-RESISTOR EIA1206	0009.9975.00	PHILIPS_CO	MPC 01	
R49	RG 47K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7072.00	DRALORIC	CR 0603	
R50	RG 27K4 +-1% TK200 0603 SMD RESISTOR	1097.6392.00	DRALORIC	CR 0603	
R51	RG 27K4 +-1% TK200 0603 SMD RESISTOR	1097.6392.00	DRALORIC	CR 0603	
R52	RG 150 OHM+-0,1%TK25 1206 SMD-RESISTOR EIA1206	0009.8091.00	PHILIPS_CO	MPC 01	
R53	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R54	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R55	RG 3K92 +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8427.00	DRALORIC	CR 0603	
R56	RG 10,0KOH+-0,1%TK25 1206 SMD-RESISTOR	0009.7666.00	PHILIPS_CO	MPC 01	
R57	RG 10,0KOH+-0,1%TK25 1206 SMD-RESISTOR	0009.7666.00	PHILIPS_CO	MPC 01	
R58	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R59	RG 825R +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8391.00	DRALORIC	CR 0603	
R60	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R61	RG 68,1 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8849.00	PHILIPS_CO	RC02	
R62	RK SMD-HEISSL.1K 1206 SMD-NTC-RESISTOR	0008.9207.00	SIEMENS	B57621-C102-J	
R63	RG 221 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5614.00	PHILIPS_CO	RC02	
R65	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R66	RG 2KO +-1% TK200 0603 SMD RESISTOR	1097.6328.00	DRALORIC	CR 0603	
R69	RG 1K37 +-1% TK200 0603 SMD RESISTOR	1097.6111.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R70	RG 825R +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8391.00	DRALORIC	CR 0603	
R71	RG 825R +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8391.00	DRALORIC	CR 0603	
R72	RG 1K37 +-1% TK200 0603 SMD RESISTOR	1097.6111.00	DRALORIC	CR 0603	
R73	RG 2KO +-1% TK200 0603 SMD RESISTOR	1097.6328.00	DRALORIC	CR 0603	
R74	RG 10,OKOH+-0,1%TK25 1206 SMD-RESISTOR	0009.7666.00	PHILIPS_CO	MPC 01	
R75	RG 698 OHM+-0,1%TK25 1206 SMD-RESISTOR EIA1206	0009.9946.00	PHILIPS_CO	MPC 01	
R76	RG 10,OKOH+-0,1%TK25 1206 SMD-RESISTOR	0009.7666.00	PHILIPS_CO	MPC 01	
R77	RG 10,OKOH+-0,1%TK25 1206 SMD-RESISTOR	0009.7666.00	PHILIPS_CO	MPC 01	
R78	RG 1,O KO +-0,1%TK25 1206 SMD-RESISTOR	0009.7595.00	PHILIPS_CO	MPC 01	
R79	RG 511 OHM+-0,1%TK25 1206 SMD-RESISTOR EIA1206	0009.8810.00	PHILIPS_CO	MPC 01	
R80	RG 698 OHM+-0,1%TK25 1206 SMD-RESISTOR EIA1206	0009.9946.00	PHILIPS_CO	MPC 01	
R81	RG 511 OHM+-0,1%TK25 1206 SMD-RESISTOR EIA1206	0009.8810.00	PHILIPS_CO	MPC 01	
R84	RG 121 OHM+-1%TK200 0603 SMD-RESISTOR EIA0603	0009.9498.00	DRALORIC	CR 0603	
R85	RG 121 OHM+-1%TK200 0603 SMD-RESISTOR EIA0603	0009.9498.00	DRALORIC	CR 0603	
R86	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R87	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R88	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R90	RG 3KO1+-1% TK200 0603 SMD-RESISTOR EIA0603	0010.9298.00	DRALORIC	CR 0603	
R93	RG 3KO1+-1% TK200 0603 SMD-RESISTOR EIA0603	0010.9298.00	DRALORIC	CR 0603	
R94	RG 33K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7066.00	DRALORIC	CR 0603	
R95	RG 220K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7108.00	DRALORIC	CR 0603	
V1	AE BZX284-B5V1 0,4W ZDI ZENER DIODE	0048.3516.00	PHILIPS_SE	BZX284-B5V1	
V2	AE BB640 62/03PF CDI TUNNING DIODE	0048.3574.00	SIEMENS	BB640 (Q62702-B589)	
V3	AE BB640 62/03PF CDI TUNNING DIODE	0048.3574.00	SIEMENS	BB640 (Q62702-B589)	
V4	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	
X1	FP BUCHSENLEISTE 34P.GER CONNECTOR	FP 1043.9958.00	3M	150234-2020TB	

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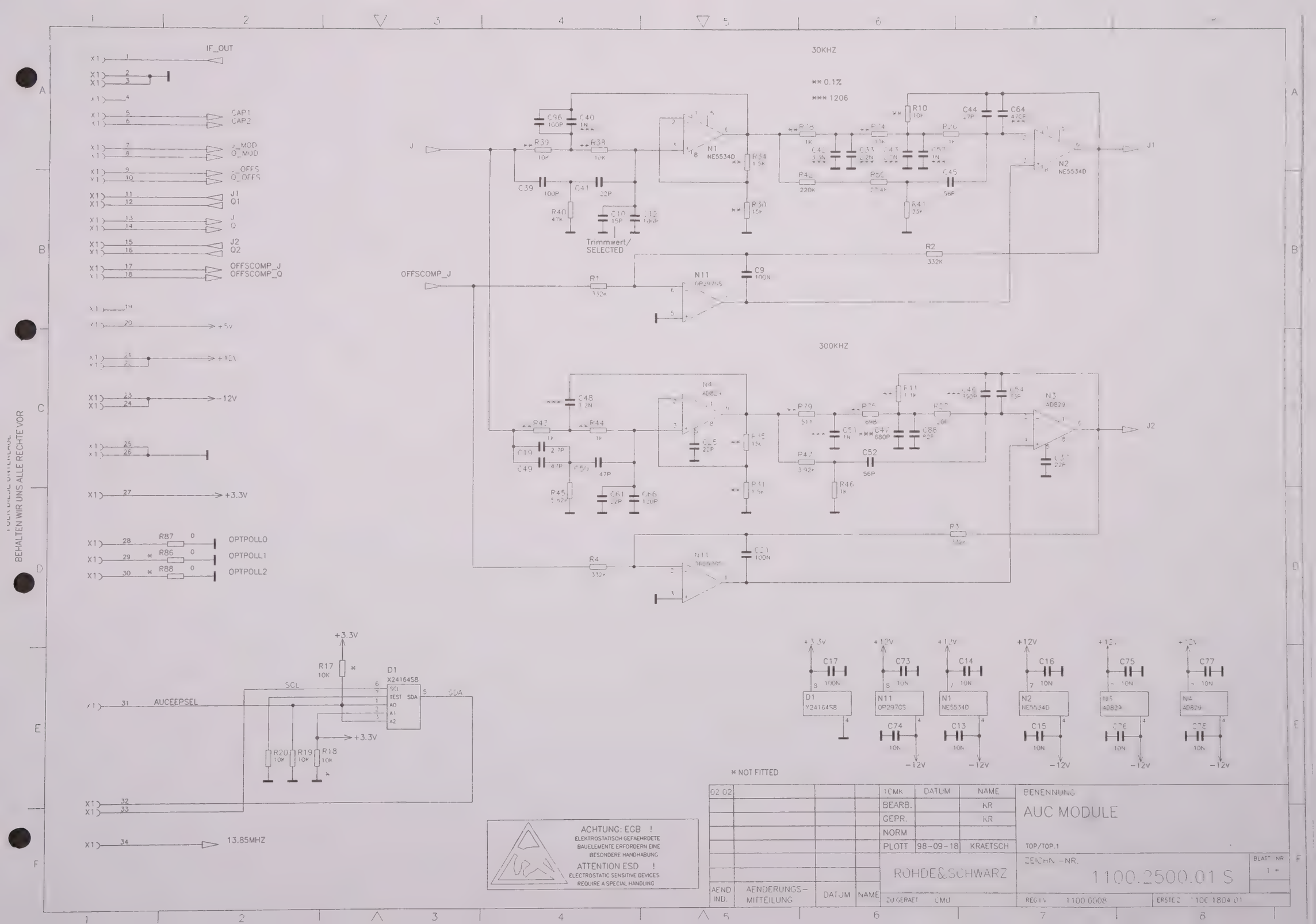
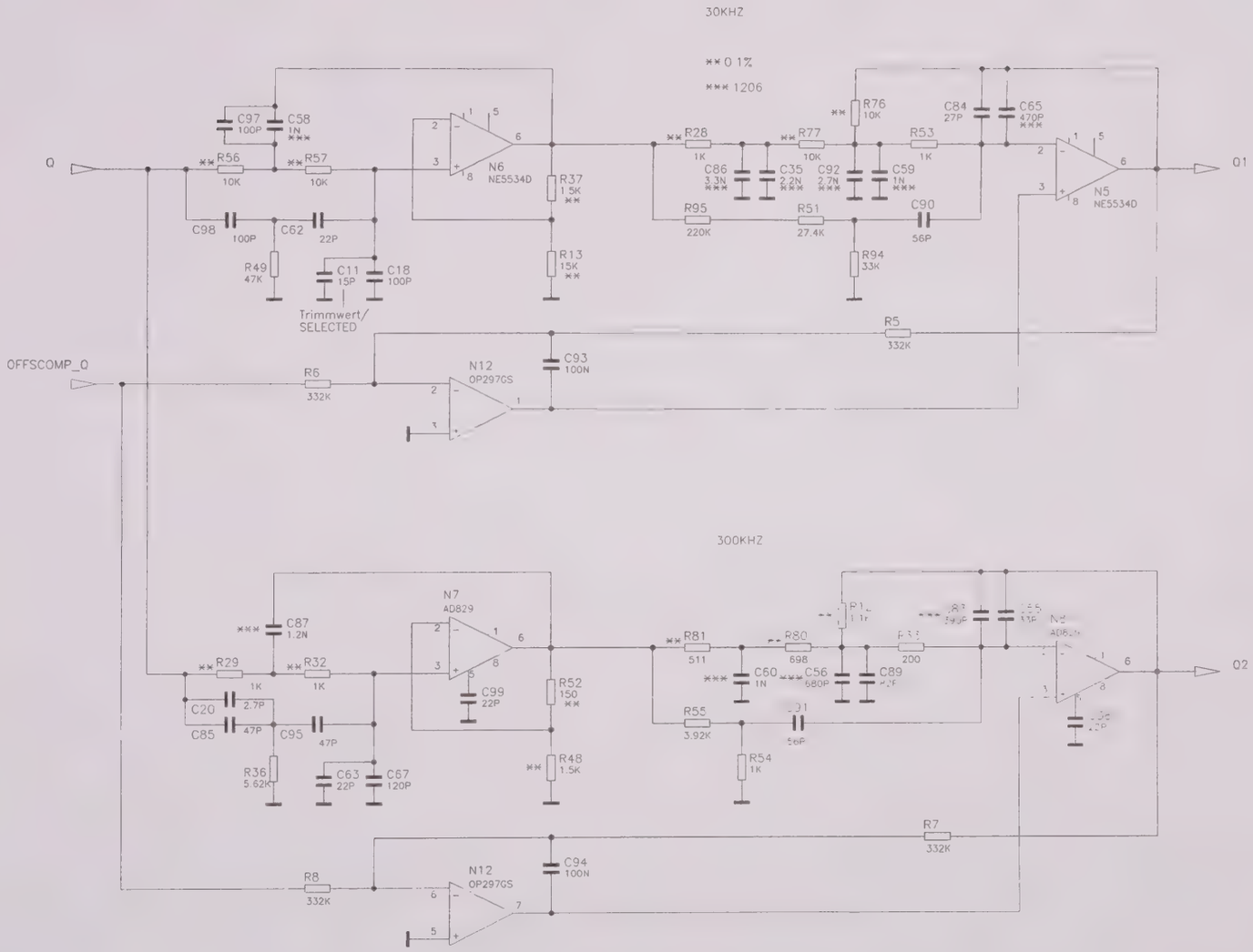

IF_OUT
CAP1
CAP2
J_MOD
Q_MOD
J_OFFS
Q_OFFS
J1
Q1
J
Q
J2
Q2
OFFSCOMP_J
OFFSCOMP_Q
+5V
+12V
-12V
+3.3V
OPTPOLL0
OPTPOLL1
OPTPOLL2
AUCEEPSEL
13.85MHZ
30KHZ
** 0.1%
*** 1206
N1 NE5534D
N2 NE5534D
N11 OP2970S
Trimmwert/ SELECTED
300KHZ
N4 AD829
N3 AD829
D1 X24164S8
SCL
SDA
* NOT FITTED
ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG
ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING
BEHALTEN WIR UNS ALLE RECHTE VOR
02 02
AEND IND.
AENDERUNGS-MITTEILUNG
DATUM
NAME
ICMK
DATUM
NAME
BEARB.
KR
GEPR.
KR
NORM
PLOTT
98-09-18
KRAETSCH
BENENNUNG
AUC MODULE
TOP/TOP.1
ROHDE&SCHWARZ
ZEICHN.-NR.
1100.2500.01 S
BLATT NR
1 +
ZU GERAET CMU
REG.I.V. 1100 0008
ERSTE Z 1100 1804 01

BEHALTEN WIR UNS ALLE RECHTE VOR



ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
02.02			

	DATUM	NAME
BEARB.		KR
GEPR.		KR
NORM		
PLOTT	98-09-18	KRAETSCH

BENENNUNG: AUC MODULE

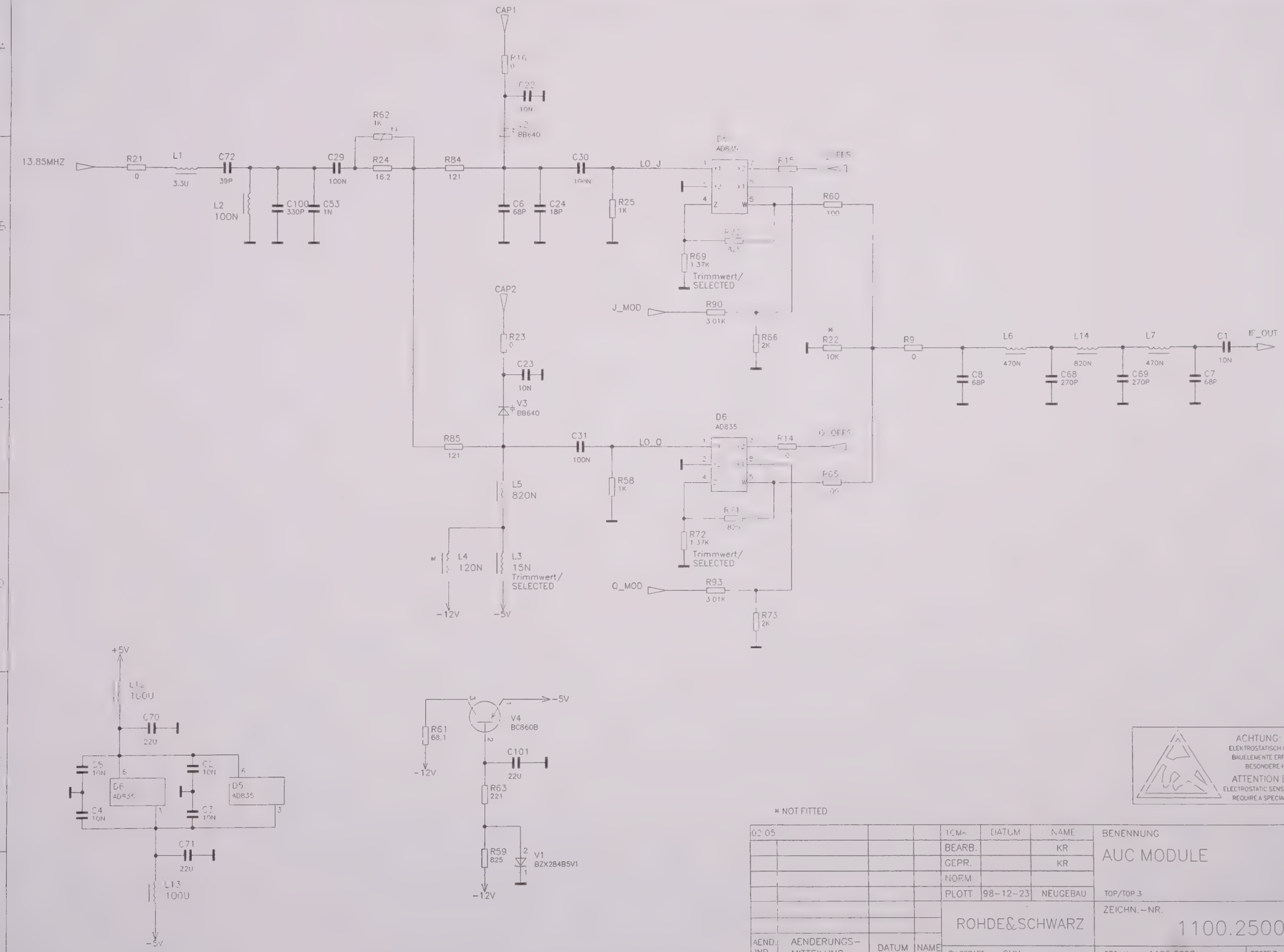
TOP/TOP.2

ROHDE&SCHWARZ

ZEICHN.-NR. 1100.2500.01 S

BLATT-NR 2 +

ZU GERAET CMU | REGIV 1100.0008 | EINSTZ 1100.1804.01



ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG
ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

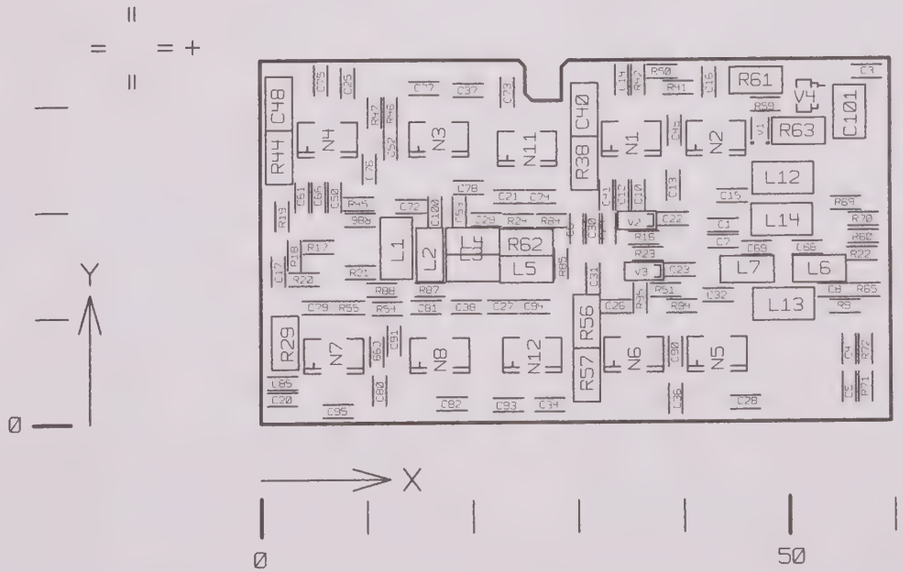
* NOT FITTED

02 05				TCMK	DATUM	NAME	BENENNUNG
				BEARB.		KR	AUC MODULE
				GEPR.		KR	
				NORM			
				PLOTT	98-12-23	NEUGEBAU	TOP/TOP.3
				ROHDE&SCHWARZ			ZEICHN.-NR. 1100.2500.01 S
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET CMU			REG.I.V. 1100.0008 ERSTE Z. 1100.1804.01

BLATT-NR 3 -

FUER DIESE UNTERLAGE BEHALTEN WIR UNS ALLE RECHTE VOR

AUCH UEBER UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR



DARSTELLUNG SEITE B
VIEW ON SIDE B

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN UEBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
02.01			

1:MK	DATUM	NAME
BEARB.		KR
GEPR.		KR
NORM		
PLOTT	98-07-13	KRAETSCH

ROHDE&SCHWARZ
ZU GERAET CMU

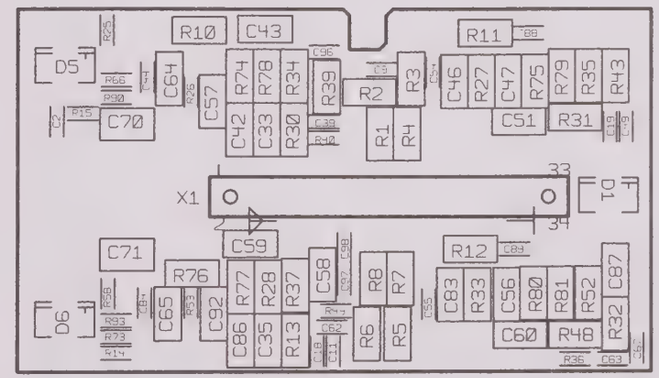
BENENNUNG
AUC MODULE

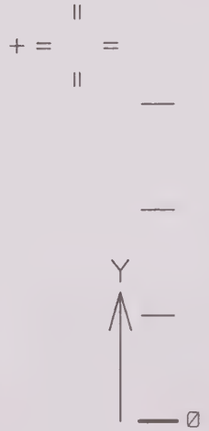
ZEICHN.-NR.
1100.2500.01 D

BLATT-NR. 1+
V. BL.

REG.I.V. 1100.0008
ERSTE Z. 1100.1804

FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR





DARSTELLUNG SEITE A
VIEW ON SIDE A

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN UEBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
02.01			

	DATUM	NAME
1CMK		
BEARB.		KR
GEPR.		KR
NORM		
PLOTT	98-07-13	KRAETSCH

ROHDE&SCHWARZ
ZU GERAET CMU

BENENNUNG
AUC MODULE

ZEICHN.-NR. 1100.2500.01 D
BLATT-NR. 2-
V. BL.

REG.I.V. 1100.0008
ERSTE Z. 1100.1804

ROHDE&SCHWARZ

Measurements
Division

Service Documents

REFERENCE BOARD

1100.2600.00

Printed in the Federal
Republic of Germany

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5 REFERENCE BOARD

The REFERENCE BOARD is a plug-in module in HVC design, which is inserted in the CMU on the right alongside MOTHERBOARD 2 using a 48-contact future bus connector.
Nine MMCX connectors are provided at the top of the module, which serve as inputs or outputs for various clock signals and are connected to the respective modules or to the rear panel via appropriate coax cables.
Two holes at the top of the HVC panel are used for adjustment of the +5-VDC reference voltage and the 10-MHz TCXO reference frequency.
The REFERENCE BOARD provides all the necessary clock signals (NETCLK1/2) and reference frequencies (110.8 MHz) as well as the +5-VDC reference voltage for the CMU.
These frequencies are all derived from high-precision internal 10-MHz reference elements (TCXO or optional OCXO CMU-B11/12) or from externally applied frequencies.

Function Description

The REFERENCE BOARD consists of the following circuits:

- 110.8-MHz crystal oscillator
- Netclock generator 1
- Netclock generator 2
- +5-VDC reference voltage source
- Data input and output
- Current supply
- Diagnosis multiplexer.

The REFERENCE BOARD includes the following single functions:

Crystal oscillator

A 110.8-MHz crystal oscillator is phased-locked and thus synchronized in a PLL with the selected reference element TCXO and optionally with reference element OCXO or with an external signal. This 110.8-MHz signal is buffered and provided for other modules at three MMCX connectors.
A signal of 27.7-MHz (110.8 MHz/4) is provided at another MMCX connector for extension boards.

Netclock generators 1 and 2

The netclock generators 1 and 2 are of identical design; however, they are functional units that can be set irrespective of each other. They generate adjustable TTL clock frequencies ranging from 21 MHz to 84 MHz with a very fine frequency resolution of 0.1 Hz, derived from the 110.8-MHz signal. These clock frequencies are provided for other modules at two MMCX connectors.
An adjustable and highly stable +5-VDC voltage is provided as DC reference for other modules at the MOTHERBOARD connector.

Diagnosis multiplexer

A diagnosis multiplexer polls internal voltages and delivers them to the MOTHERBOARD connector for further evaluation. Internal states and temperatures are polled in this way.

Control and data output of the REFERENCE BOARD is effected via an 8-bit ISA-bus interface. A 2kbyte EEPROM contains information on module data such as serial number and update status.

Data input and output

See circuit diagram 1100.2600.01 sheet 1

110.8-MHz Crystal Oscillator

Function

Chamber B1 contains the conditioning of the stabilized supply voltage of the 110.8-MHz crystal oscillator.

The +8-VREG voltage is derived via the +5-VREF from the +12-VB voltage with N4 and V26. Likewise, the –5-VB voltage is generated from the –12-VB voltage with N4 and V1.
Further stabilized supply voltages (+5 VB and +7 VB) are generated from the +8-VB voltage with the aid of two emitter follower circuits (V33 and V73). The +8-VREG voltage serves as reference voltage.

Chamber B2 accommodates the select circuit of the reference elements. Multiplexer D37 permits to select

- the TCXO B2 with circuitry,
- input REFIN with input circuits V67 and D10,
- signal RFOXCO from MOTHERBOARD connector X101B11 or
- signal ABISSYNCOUT from MOTHERBOARD connector X101B6.

The selected signal is buffered, provided at output REFOUT1 via D11 and – depending on the mode selected (with/without prescaler) – taken via prescaler N2 and level converter V68 or directly to a further multiplexer D38.

From there, the selected reference signal (nominal value) is taken to the FI input D23.8 of synthesizer D23. This component includes further dividers and the phase detector. It is serially programmed via a three-wire BUS (CLK, DATA, EN).

Via R179 and R2, adjustable reference currents are impressed which can be further set in D23 and determine the phase detector current at D23.10. A signal is tapped at D23.14, which indicates the locked status of the PLL.

The 2.77-MHz signal that is fed back from the 110.8-MHz oscillator and frequency-divided by 40 (D49 divide-by-4 circuit, D17 divide-by-10 circuit) is taken to RI input D23.1 as actual value.

The phase detector in synthesizer D23 outputs negative or positive pulses until the PI controller N3 in chamber B1 has varied its output voltage (equal to the tuning voltage 110.8MHz oscillator). This causes the 110.8-MHz oscillator to tune its frequency such that the signal fed back at D23.1 is the same as the reference signal at D23.8.
Thus, the PLL has locked in and the oscillator is phase-locked with the selected reference element. The reference element TCXO is used as standard on the REFERENCE BOARD.

If installed in the CMU, the Option OCXO (CMU-B11 or -B12) is automatically used as reference element by the CMU software and the standard TCXO is switched off.
In addition, it is possible to switch to external synchronization and use the signal applied at BNC connector REFIN at the rear of the CMU as reference signal.

The 110.8-MHz oscillator in chamber B1 consists of transistor V45 including resonance circuit L39/C67, the 3rd overtone crystal B1 and tuning diode V47.
Via diode V23, the oscillator amplitude is rectified and output as diagnostic voltage. The oscillator is supplied with the voltages +8 VREG and –5 VB and resonates at approx. 110.8 MHz with the resonance coil L39 adjusted.

With the aid of the tuning voltage 110.8 MPLLV supplied via jumper X27 by the PI controller, the oscillator can be tuned by tuning diode V47.
Via C78, the oscillator signal is decoupled and taken to the two buffer amplifiers V31 and V32.
Via buffer amplifier V32 and the following divider D49 (divide-by-4 circuit), the 100.8-MHz signal is returned as signal INTDIV to the phase detector on the one hand and taken via D8 to output RESFREQ (27.7MHz) on the other hand.

Via buffer amplifier V32 and the following divider D20 (divider 3), the 110.8-MHz signal is taken as 36.93-MHz signal via D8 to the netclock generators 1 and 2.
Via buffer amplifier V31 with subsequent harmonic filter and emitter follower V12, the 110.8-MHz signal is then taken via pin diodes V38 and V39 to chamber B3 to the three output buffers V13/V14/V15 and is available at the outputs 110.8M1/2/3.

Characteristics

MMCX connector X103 REFIN

- 10 kHz to 1 MHz step 100 Hz, TTL level;
- 1 MHz to 52 MHz step 100 Hz;
- 0.5 V to 2 Vrms (7 dBm to +19 dBm) at 50 Ω;
- input impedance 50 Ω;
- frequency deviation ± 5 ppm

MMCX connector X104 REFOUT

- 10 MHz or REFIN;
- 0.5 V to 2 Vrms (>1.4 Vpp) at 50 Ω;
- output impedance 50 Ω

MMCX connector X105 RESFREQ

- TTL level, output impedance approx. 3 Ω, 27.7 MHz

MMCX connectors X106/107/108 110.8M1/2/3

- 110.8 MHz synchronized with reference element TCXO/ REFIN/ OCXO/ ABISSYNCOUT
- Level > 0.4 Vrms (+5 dBm) at 50 Ω; output impedance 50 Ω

Netclock Generator 1

A further function of the module is the netclock generation, which provides selectable TTL clock frequencies from 21 MHz to 84 MHz with a very fine frequency resolution of 0.1 Hz.

Function

In chamber C1, a stabilized voltage of +5 V (+5 VC1) is derived from the voltage +8 VC1 with the aid of an emitter follower V34 and a Zener diode V7. This voltage supplies the DDS component D7.

The signal 36.93M1 divided by the 110.8-MHz oscillator is used as reference frequency in the DDS component. This component is directly programmed via a 16-bit data interface as well as address and control lines by the bit registers on the REFERENCE BOARD. This component permits to generate a frequency division of the 36.93-MHz signal that can be set in very fine steps.

The signal that is divided in the range from 9 MHz to 12 MHz is decoupled by means of balun T1, applied to a bandpass filter for spurious suppression and subsequently routed to chamber D1 as signal DDSOUT1.
In chamber D1, a stabilized voltage of +5 V (+5 VD1.1/1.2) is derived from the voltage +8 VD1 by means of emitter follower V35 and Zener diode V8 and used for supply of the components in this chamber.

The signal DDSOUT1 is taken as reference signal (nominal value) via amplifier N5 (with its own current source circuit V2) to phase detector D13, which is of discrete design.

The signal fed back from the VCO (Voltage Controlled Oscillator), which is tunable from 84 MHz to 168 MHz, and subsequent dividers is divided in the programmable fractional divider D22 and applied as actual value to phase detector D13.

The phase detector controls the subsequent PI controller N6 such that its output voltage (equal to the tuning voltage of the oscillator) tunes the oscillator until nominal and actual value are the same at the phase detector.
In chamber E1, a stabilized voltage of +5 V (+5 VE1) is derived from the voltage +8 VE1 by means of emitter follower V36 and Zener diode V9 and used for supply of the components in this chamber.

The tunable 84 MHz to 168 MHz VCO consists of transistor V46, trimming coil L50, capacitor C68 and tuning diodes V40 to V43. An extra current source circuit for setting the base and emitter current separately supplies transistor V46.
The tuning voltage of the PI controller NCLK1PLLV is taken via jumper X34 to the tuning diodes, thus tuning the VCO.

Via C167, the oscillator output signal is routed to D21 (divide-by-2 circuit) and then to a level converter with transistor V22 in order to switch the following gate D9.
The output signal of gate D9 is fed back via D16 (divide-by-2 circuit) as signal NCLK1INT to fractional divider D22 on the one hand, and via gate D9 or divider D14 (divide-by-2 circuit) to output connector X109 NETCLK1 on the other hand, serving as network-specific TTL clock for the DIGITAL BOARD.

Characteristics

Connector X109 NETCLK1

- 21 MHz to 84 MHz; TTL level, output impedance approx. 3 Ω

Netclock Generator 2

A further function of the module is the netclock generation, which provides selectable TTL clock frequencies from 21 MHz to 84 MHz with a very fine frequency resolution of 0.1 Hz.

Function

In chamber C2, a stabilized voltage of +5 V (+5 VC2) is derived from the voltage +8 VC2 by means of emitter follower V58 and Zener diode V51. This voltage supplies the DDS component D39.

The signal 36.93M2 that is divided by the 110.8-MHz oscillator is used as reference frequency in the DDS component. This component is directly programmed by the bit registers on the REFERENCE BOARD via a 16-bit data interface as well as address and control lines. This component enables to generate a frequency division of the 36.93-MHz signal which can be programmed in very fine steps.
The signal that is divided in the range from 9 MHz to 12 MHz is decoupled by means of balun T2, applied to a bandpass filter for spurious suppression and subsequently taken to chamber D2 as signal DDSOUT2.
In chamber D2, a stabilized voltage of +5 V (+5 VD2.1/2.2) is derived from the +8 VD2 voltage by means of emitter follower and Zener diode V52 and used for supply of the components in this chamber.

The signal DDSOUT2 is taken via amplifier N8 (with its own current source circuit V48) as reference signal (nominal value) to phase detector D42, which is of discrete design.
The signal returned from the VCO (Voltage Controlled Oscillator), which is tunable from 84 MHz to 168 MHz, and from the following dividers is divided in the programmable fractional divider D46 and applied to phase detector D42 as actual value.

The phase detector controls the subsequent PI controller N9 such that its output voltage (equal to the tuning voltage of the oscillator) tunes the oscillator until nominal and actual value on the phase detector are the same. Thus, the oscillator is synchronized with the reference signal.

In chamber E2, a stabilized voltage of +5 V (+5 VE2) is derived from the +8 VE2 voltage by means of emitter follower V60 and Zener diode V53 and used for supply of the components in this chamber.

The VCO that is tunable from 84 MHz to 168 MHz consists of transistor V65, trimming coil L67, capacitor C214 and tuning diodes V61 to V64. Transistor V64 is supplied by an extra current source circuit for setting the base and emitter current separately.

The tuning voltage of the PI controller NCLK2PLLV is taken via jumper X42 to the tuning diodes, thus tuning the VCO.
Via C239, the oscillator output signal is applied to D45 (divide-by-2 circuit) and then to a level converter with transistor V54 in order to switch gate D40.

The output signal of gate D40 is taken via D43 (divider by 2) as signal NCLK2INT to fractional divider D46 on the one hand, and via gate D40 or via divider D43 (divide-by-2 circuit) to output connector X110 NETCLK2 on the other hand. It serves as network-specific TTL clock for the DIGITAL BOARD.

Characteristics

Connector X110 NETCLK2

21 to 84 MHz; TTL level, output impedance approx. 3 Ω.

+5-VDC Reference Voltage Source

The integrated reference element N1 provides a highly stable +2.5-VDC voltage, which can be exactly adjusted by means of R120.
Capacitors C164 and C102 are used for noise suppression.
The +2.5-VDC voltage is buffered via OPAMP N7 and doubled to the +5-VDC voltage.
At the output of this OPAMP, the +5-VDC voltage is distributed internally to the voltage +5 VREFA and externally via a lead-through filter to the voltage +5 VREF at the MOTHERBOARD connector X101B2.

Characteristics

X101B2 against X101B1 (GND)

+5 VDC ± 1 mV; adjustable by means of R120

Data Input and Output

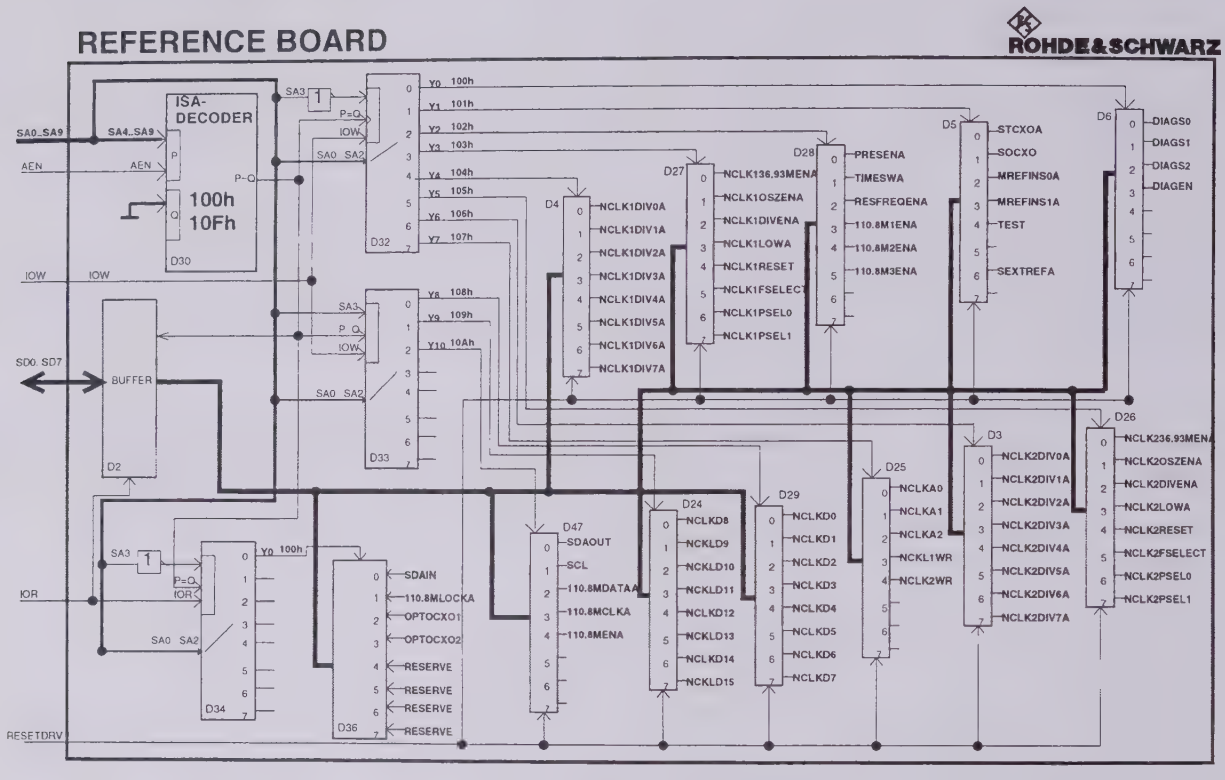


Fig. 5-1: Data input and output – Block diagram

Write Accesses to the REFERENCE BOARD

Explanation of the addresses at the output of the 3-to-8 decoder when writing

The 3-to-8 decoder is selected via the ISA-BUS addresses SA0...SA2 and the base addresses SA3...SA9 as well as via the IOW line and determines the selection of the respective bit register.

With the data SD0...SD7 applied and the bit registers addressed, the data are transferred to the output and are maintained on this register until the next write access.
When the instrument is switched on, all bit registers are set to 00000000 via the ISA-bus signal RESETDRV.

D32

Designation	Address	Function description
Y0	100h	Diagnosis
Y1	101h	TCXO/OCXO/FREFIN
Y2	102h	110.8 MHz / 27.7 MHz
Y3	103h	NETCLK1
Y4	104h	NETCLK1 main/secondary divider
Y5	105h	NETCLK2
Y6	106h	NETCLK2 main/secondary divider
Y7	107h	DDS addresses/selection

D33

Designation	Address	Function description
Y8	108h	DDS data D0 to D7
Y9	109h	DDS data D8 to D15
Y10	10Ah	EEPROM data / 110.8-MHz synthesizer

Meaning of Bit Registers Y0/Y1/Y2/Y3/Y4/Y5/Y6/Y7/Y8/Y9/Y10

Bit register Y0, address 100h (register D6)

Note: *Default values* ***in bold type.***

Designation	Status	Function description	Bit	PIN
DIAGS0 DIAGS1 DIAGS2 DIAGEN	BIT 3 2 1 0 **0 x x x** 1 0 0 1 1 0 1 0 1 0 1 1 1 1 0 0 1 1 0 1 1 1 1 0 1 1 1 1	 **Diagnosis mux disabled** GND NETCLK1TUNE [+0.25 V...+3.9 V] NETCLK2TUNE [+0.25 V...+3.9 V] 110.8MTUNE [+0.5 V...+3.9 V] 110.8MLEV [+0.05 V...+0.15 V] 3.3VSUPPLY [+3.13 V..+3.47 V] 5.0VREF [+4.990 V...+5.010 V] TEMPERATURE [+0.025 V...+0.7 V]; 10 mV/°C; T_{min}=2.5°C = 25 mV, T_{max}=70 °C=700 mV	0 1 2 3	D6,2 D6,5 D6,6 D6,9
Not used	**0** 1		4	D6,12
Not used	**0** 1		5	D6,15
Not used	**0** 1		6	D6,16
Not used	**0** 1		7	D6,19

Bit register Y1, address 101h (register D5)

Note: *Default values* ***in bold type.***

Designation	Status	Function description	Bit	PIN
STCXOA	**0** 1	**TCXO on** TCXO off	0	D5,2
SOCXOA	**0** 1	**OCXO on** OCXO off	1	D5,5
MREFINS0A MREFINS1A	BIT 3 2 **0 0** 0 1 1 0 1 1	 **TCXO 10MHz** FREFIN 100 kHz 50 MHz OCXO 10 MHz ABISSYNCOUT 2,048 MHz	2 3	D5,6 D5,9
TEST Not used	BIT 5 4 **0 0** 0 1 1 0 1 1	Not used Not used	4 5	D5,12 D5,15
SEXTREFA	**0** 1	Enable signal for FREFIN disabled Enable signal for FREFIN enabled	6	D5,16
Not used	**0** 1		7	D5,19

Bit register Y2, address 102h (register D28)

Note: *Default values* ***in bold type****.*

Designation	Status	Function description	Bit	PIN
PRESCENA	**0** 1	**64/65 prescaler off** 64/65 prescaler on	0	D28,2
TIMESWA	**0** 1	**Phase detector reference current 10 µA** Phase detector reference current 100 µA	1	D28,5
RESFREQENA	**0** 1	**27.7 MHz output off** 27.7 MHz output on	2	D28,6
110.8M1ENA	**0** 1	**110.8 MHz output1 on** **110.8** MHz output1 off	3	D28,9
110.8M2ENA	**0** 1	**110.8 MHz output2 off** **110.8** MHz output2 on	4	D28,12
110.8M3ENA	**0** 1	**110.8 MHz output3 on** **110.8** MHz output3 off	5	D28,15
Not used	**0** 1		6	D28,16
Not used	**0** 1		7	D28,19

Bit register Y3, address 103h (register D27)

Note: *Default values* ***in bold type****.*

Designation	Status	Function description	Bit	PIN
NCLK136.93MENA	**0** 1	**NETCLK1 36.93MHz and DDS off** **NETCLK**1 36.93MHz and DDS on	0	D27,2
NCLK1OSZENA	**0** 1	**Netckl1 oscillator off** Netckl1 oscillator on	1	D27,5
NCLK1DIVENA	**0** 1	**NETCLK1 main/secondary divider off** NETCLK1 main/secondary divider on	2	D27,6
NCLK1LOWA	**0** 1	**NETCLK1 output frequency 42...84MHz** NETCLK1 output frequency 21...42MHz	3	D27,9
NCLK1RESET	**0** 1	**NETCLK1 DDS reset (phase akku = 0)** NETCLK1 DDS active	4	D27,12
NCLK1FSELECT	**0** 1	**NETCLK1 DDS frequency register0 active** NETCLK1 DDS frequency register1 active	5	D27,15
NCLK1PSEL0 NCLK1PSEL1	Bits 7 6 **0 0** **0 1** **1 0** **1 1**	 **NETCLK1 DDS phase register 0 active** NETCLK1 DDS phase register 1 active NETCLK1 DDS phase register 2 active NETCLK1 DDS phase register 3 active	6 7	D27,16 D27,19

Bit register Y4, address 104h (register D4)

Note: *Default values **in bold type**.*

Designation	Status	Function description	Bit	PIN
NCLK1DIV0A NCLK1DIV1A NCLK1DIV2A NCLK1DIV3A	BIT 3 2 1 0 **0 x x x** 1 0 0 0 1 0 0 1 1 0 1 0 1 0 1 1 1 1 0 0 1 1 0 1 1 1 1 0 1 1 1 1	Secondary division factor (NTF) for NETCLK1 **impermissible values, permissible for default** NTF = 2 NTF = 3 NTF = 4 NTF = 5 NTF = 6 NTF = 7 NTF = 8 NTF = 9	0 1 2 3	D4,2 D4,5 D4,6 D4,9
NCLK1DIV4A NCLK1DIV5A NCLK1DIV6A NCLK1DIV7A	BIT 7 6 5 4 **0 x x x** 1 0 0 0 1 0 0 1 1 0 1 0 1 0 1 1 1 1 0 0 1 1 0 1 1 1 1 0 1 1 1 1	Main division factor (HTF) for NETCLK1 **impermissible values, permissible for default** HTF = 2 HTF = 3 HTF = 4 HTF = 5 HTF = 6 HTF = 7 HTF = 8 HTF = 9	4 5 6 7	D4,12 D4,15 D4,16 D4,19

Note: *Valid division factor: (HTF+NTF)/2*

Bit register Y5 , address 105h (register D26)

Note: *Default values **in bold type**.*

Designation	Status	Function description	Bit	PIN
NCLK236.93MENA	**0** 1	**NETCLK2 36.93MHz and DDS off** NETCLK2 36.93MHz and DDS on	0	D26,2
NCLK2OSZENA	**0** 1	**Netckl2 oscillator off** Netckl2 oscillator on	1	D26,5
NCLK2DIVENA	**0** 1	**NETCLK2 main/secondary divider off** NETCLK2 main/secondary divider on	2	D26,6
NCLK2LOWA	**0** 1	**NETCLK2 output frequency 42...84 MHz** NETCLK2 output frequency 21...42MHz	3	D26,9
NCLK2RESET	**0** 1	**NETCLK2 DDS reset (phase akku = 0)** NETCLK2 DDS active	4	D26,12
NCLK2FSELECT	**0** 1	**NETCLK2 DDS frequency register0 active** NETCLK2 DDS frequency register1 active	5	D26,15
NCLK2PSEL0 NCLK2PSEL1	Bits 7 6 **0 0** **0 1** **1 0** **1 1**	 **NETCLK2 DDS phase register 0 active** **NETCLK**2 DDS phase register 1 active **NETCLK**2 DDS phase register 2 active **NETCLK**2 DDS phase register 3 active	6 7	D26,16 D26,19

Bit register Y6, address 106h (register D3)

Note: *Default values **in bold type**.*

Designation	Status	Function description	Bit	PIN
NCLK2DIV0A NCLK2DIV1A NCLK2DIV2A NCLK2DIV3A	BIT 3 2 1 0 **0 x x x** 1 0 0 0 1 0 0 1 1 0 1 0 1 0 1 1 1 1 0 0 1 1 0 1 1 1 1 0 1 1 1 1	Secondary division factor for **NETCLK2** **impermissible values, permissible for default** NTF = 2 NTF = 3 NTF = 4 NTF = 5 NTF = 6 NTF = 7 NTF = 8 NTF = 9	0 1 2 3	D3,2 D3,5 D3,6 D3,9
NCLK2DIV4A NCLK2DIV5A NCLK2DIV6A NCLK2DIV7A	BIT 7 6 5 4 **0 x x x** 1 0 0 0 1 0 0 1 1 0 1 0 1 0 1 1 1 1 0 0 1 1 0 1 1 1 1 0 1 1 1 1	Main division factor for **NETCLK2** **impermissible values, permissible for default** HTF = 2 HTF = 3 HTF = 4 HTF = 5 HTF = 6 HTF = 7 HTF = 8 HTF = 9	4 5 6 7	D3,12 D3,15 D3,16 D3,19

Note: *Valid division factor: (HTF+NTF)/2*

Bit register Y7, address 107h (register D25)

Note: *Default values **in bold type**.*

Designation	Status	Function description	Bit	PIN
NCLKA0 NCKLA1 NCKLA2	Bit 2 1 0 **0 0 0** 0 0 1 0 1 0 0 1 1 1 0 0 1 0 1 1 1 0 1 1 1	 Netckl 1 and 2 DDS Register Freq0 16LSB Netckl 1 and 2 DDS Register Freq0 16MSB Netckl 1 and 2 DDS Register Freq1 16LSB Netckl 1 and 2 DDS Register Freq1 16MSB Netckl 1 and 2 DDS Register Phase 0 Netckl 1 and 2 DDS Register Phase 1 Netckl 1 and 2 DDS Register Phase 2 Netckl 1 and 2 DDS Register Phase 3	0 1 2	D25,2 D25,5 D25,6
NCLK1WR	**0** 1	**NETCLK 1 DDS write pulses with rising edge** NETCLK 1 DDS write pulses with rising edge	3	D25,9
NCLK2WR	**0** 1	**NETCLK 2 DDS write pulses with rising edge** NETCLK 2 DDS write pulses with rising edge	4	D25,12
Not used	**0** 1		5	D25,15
Not used	**0** 1		6	D25,16
Not used	**0** 1		7	D25,19

Bit register Y8, address 108h (register D29)

Note: *Default values **in bold type**.*

Designation	Status	Function description	Bit	PIN
NCLKD0	**0** 1	**Netckl1 and 2 DDS data** Netckl1 and 2 DDS data	0	D29,2
NCLKD1	**0** 1	**Netckl1 and 2 DDS data** Netckl1 and 2 DDS data	1	D29,5
NCLKD2	**0** 1	**Netckl1 and 2 DDS data** Netckl1 and 2 DDS data	2	D29,6
NCLKD3	**0** 1	**Netckl1 and 2 DDS data** Netckl1 and 2 DDS data	3	D29,9
NCLKD4	**0** 1	**Netckl1 and 2 DDS data** Netckl1 and 2 DDS data	4	D29,12
NCLKD5	**0** 1	**Netckl1 and 2 DDS data** Netckl1 and 2 DDS data	5	D29,15
NCLKD6	**0** 1	**Netckl1 and 2 DDS data** Netckl1 and 2 DDS data	6	D29,16
NCLKD7	**0** 1	**Netckl1 and 2 DDS data** Netckl1 and 2 DDS data	7	D29,19

Bit register Y8 , address 108h (register D29)

Note: *Default values **in bold type**.*

Designation	Status	Function description	Bit	PIN
NCLKD8	**0** 1	**Netckl1 and 2 DDS data** Netckl1 and 2 DDS data	0	D24,2
NCLKD9	**0** 1	**Netckl1 and 2 DDS data** Netckl1 and 2 DDS data	1	D24,5
NCLKD10	**0** 1	**Netckl1 and 2 DDS data** Netckl1 and 2 DDS data	2	D24,6
NCLKD11	**0** 1	**Netckl1 and 2 DDS data** Netckl1 and 2 DDS data	3	D24,9
NCLKD12	**0** 1	**Netckl1 and 2 DDS data** Netckl1 and 2 DDS data	4	D24,12
NCLKD13	**0** 1	**Netckl1 and 2 DDS data** Netckl1 and 2 DDS data	5	D24,15
NCLKD14	**0** 1	**Netckl1 and 2 DDS data** Netckl1 and 2 DDS data	6	D24,16
NCLKD15	**0** 1	**Netckl1 and 2 DDS data** Netckl1 and 2 DDS data	7	D24,19

Bit register Y10 , address 10Ah (register D47)

Note: *Default values **in bold type**.*

Designation	Status	Function description	Bit	PIN
SDAOUT	**0** 1	**EEPROM (2kbyte) serial DATA (inverted)** EEPROM (2kbyte) serial DATA (inverted)	0	D47,2
SCL	**0** 1	**EEPROM Serial CKL (inverted)** EEPROM Serial CKL (inverted)	1	D47,5
110.8MDATAA	**0** 1	16+23+18 data bits (57 bits) in 110.8-MHz single-chip synthesizer	2	D47,6
110.8MCLKA	**0** 1	Clock signal in 110.8-MHz single-chip synthesizer	3	D47,9
110.8MENA	**0** 1	Enable signal in 110.8 MHz sinlge-chip synthesizer (active high)	4	D47,12
not used	**0** 1		5	D47,15
not used	**0** 1		6	D47,16
not used	**0** 1		7	D47,19

Read Accesses to the REFERENCE BOARD

Explanation of the addresses at the output of the 3-to-8 decoder when reading

The 3-to-8 decoder is selected via the ISA-BUS addresses SA0...SA2 and the base addresses SA3...SA9 as well as the IOR line, thus determining the selection of the bit read register. It is high-impedance when the bit read register is not addressed.

When data are applied to the addressed bit read register, the data is sent to the output (BD0...BD7) and transferred to the ISA bus via the bus driver.

D34

Designation	Address	Function description
Y0	100h	Read register D36
Y1	101h	Not used
Y2	102h	Not used
Y3	103h	Not used
Y4	104h	Not used
Y5	105h	Not used
Y6	106h	Not used
Y7	107h	Not used

Meaning of Bit Read Register Y0

Bit register Y0, address 100h (register D36)

Note: *Default values **in bold type**.*

Designation	Status	Function description	Bit	PIN
SDAIN	0 **1**	EEPROM data **EEPROM data**	0	D36,2
110.8MLOCKA	0 **1**	**110.8**MHz PLL locked **110.8**MHz PLL unlocked	1	D36,4
OPTOCXO1	 0 **1**	Optpol OCXO CMU-B11 OCXO available OCXO not available	2	D36,6
OPTOCXO2	 0 **1**	Optpol OCXO CMU-B12 OCXO available OCXO not available	3	D36,8
not used	0 **1**		4	D36,11
not used	0 **1**		5	D36,13
not used	0 **1**		6	D36,15
not used	0 **1**		7	D36,17

Current Supply

The current supply lines are taken via lead-through filters and subsequent LC filters for RF suppression to the module in chamber A.

From there, they are distributed, as required, to other chambers, where they are filtered and partly stabilized.

The +5-VA voltage is adjusted to +3.3 V using the adjustable voltage control V16 with circuitry and taken to the 3-V logic devices in chamber A as +3.3-VA voltage.

SIGNAL characteristics

Designation	R	A	Value range	P T	Fig. No.	Terminal
GND	B	P				A1
+5,2 V	I	P	+5.2 V +52 mV/-104 mV; I < 55 mA			A2
GND	B	P				A3
+12 V	I	P	+12 V; +600 mV/-0 mV I < 40mA			A4
GND	B	P				A5
-12 V	I	P	-12 V; -600 mV/+0 mV I < 30mA			A6
GND	B	P				A7
+8 V	I	P	+8 V; +800 mV/-0 mV I < 1100 mA			A8
+8 V	I	P	+8 V; +800 mV/-0 mV; I = together with A8			A9
GND	B	P				A10
+28 V	I	P	+28 V ± 0.84 V; I < 20 mA			A11
GND	B	P				A12

Diagnosis Multiplexer

The diagnosis multiplexer D35 is controlled by register D6; output D35.3 is only enabled on request. Otherwise, the output remains high-impedance, which is necessary, because the DIAGNOSE line is also used by other modules via the MOTHERBOARD (wired or).
When the output is enabled, the voltages at the inputs of D35 are connected to output D35.3 one after the other and then taken to MOTHERBOARD connector X101B4 for further processing.

Characteristics Maximum voltage at *X101B4*: +/-5 VDC.

Voltages at the diagnosis multiplexer inputs

Input	Name	Description
D35.13	GND	Ground
D35.14	NCLK1PLLA [+0.25 V...+3.9 V];	Tuning voltage PLL NETCLK1
D35.15	NCLK2PLLA [+0.25 V...+3.9 V];	Tuning voltage PLL NETCLK2
D35.12	110.8 MPLLA [+0.5 V...+3.9 V];	Tuning voltage 110.8 MHz OSC.
D35.1	110.8 MAMPLA [+0.05 V...+0.15 V];	Amplitude 110.8 MHz OSC.
D35.5	3.3 VA [+3.13 V...+3.47 V];	Supply voltage 3.3 V
D35.2	5.0 VREFA [+4.990 V...+5.010 V];	Reference voltage +5 VREF
D35.4	TEMPERATURE [+0.025 V...+0.7 V];	Module temperature voltage 10 mV/ °C; T_{min}=2.,5 °C = 25 mV; T_{max} =70 °C= 700 mV

Opening the REFERENCE BOARD

Caution!

Make sure to follow the instructions of the following sections in order not to cause damage to the instrument or endanger people. Also observe the general safety instructions at the beginning of this manual.

To open the REFERENCE BOARD proceed as follows:

The REFERENCE BOARD is installed as plug-in module in the longitudinal module support at the front right CMU top. For replacement, proceed as follows:

- Switch off the instrument, disconnect from the mains, unscrew the rear-panel feet and pull the tube towards the rear.
- Unscrew the combi screw from the module locking bracket near the instrument fan and fold away the module locking bracket (plate) towards the top.
- Pull off all the MMCX plug-in cables from the top of the REFERENCE BOARD and lift off the module.
- Place the module onto a clean surface.
- Loosen all the screws at the top and bottom of the cover and remove both covers. The covers can also be removed individually, if required.
- Carry out repair work on the open module or connect the module to the MOTHERBOARD by means of an extension adapter (Service Kit CMU-Z10) and connect the extension MMCX coax cable (Service Kit 1100.7690.02) to the respective module and carry out the repair work (measurements, etc.). To this end, connect the instrument to the mains and switch on.
- After terminating the repair work, switch off the instrument and disconnect from the mains. Place the module onto a clean surface and replace the two covers.
- Insert the REFERENCE BOARD into the instrument in the reverse order and connect all MMCX plug-in cables.
- If required, perform the manual adjustment of the +5-VDC reference voltage and the TCXO adjustment (see Service Manual of Instrument, *chapter 2*).
- Complete the instrument again without causing damage to the cables.
- Connect the instrument to the mains and switch on.

Following this module replacement, observe the readout in the display when the CMU is switched on for the first time.

- When the line **VersionManager Start** appears and three BEEPs can be heard, press the *MENU SELECT* key.

  The version manager is started (see also Service Manual of Instrument, chapter 4, *Firmware Update*).
  The display includes the menu item *FIRMWARE UPDATE AFTER BOARD CHANGE.*

- Press the softkey to the left of the above mentioned menu item.

  The automatic module data adjustment is performed under software control, firmware updates for microprocessors and programmable chips being also performed on the modules. This may take a few minutes.

After termination of the adjustment, the operating software starts automatically, and the CMU is ready for use and complies with the specifications.

Special Measuring Instruments and Accessories

A list of the measuring instruments and accessories frequently required for the CMU is to be found at the beginning of this manual. The instruments listed in the following table are required for testing and adjustment of the REFERENCE BOARD.

Table 5-1: REFERENCE BOARD – special accessories

Item	Type of instrument	Specifications	Appropriate R&S device	Order No.
1	Digital multimeter	1 mV to 100 V 0.1 mA to 10 A	URV5	394.8010.02
2	Spectrum analyzer with frequency counter	Frequency and level measurement up to 1 GHz	FSE	1066.3010.20 (30)
3	Oscilloscope	DC-100 MHz, 2 channels		
4	Voltmeter	DC measurement 5 V ±1 mV	URE3	350.5315.03
5	Power supply	Voltage 0 V to 25 V	NGT 25	192.0503.02
6	Service Kit	CMU adaptation for elevated module	CMU-Z10	1100.7690.02

Troubleshooting

The REFERENCE BOARD consists of an 8-layer multilayer printed circuit board.

➢ When removing components, clear them of the tin using an appropriate desoldering tool.

Note: *The module contains SMD components like chip capacitors, resistors, chokes and ICs. As they risk being mechanically damaged on removal, they should only be unsoldered in the case of a proven faulty function. Besides, printed conductors risk being detached from the printed circuit board on removal.*

For installation, only use new components. When installing SMD components, they should first be fixed with a non-conducting adhesive and subsequently soldered using a fine soldering tip.

➢ Before starting troubleshooting on the module, check the coax lines and the module for proper contacts on the MOTHERBOARD. Also check the supply voltages at components that might be faulty and the test pins (see *Testing and Adjustment*) on the module.

Troubleshooting using the Selftest Menu for Modules

The selftest menu shows diagnostic voltages for individual modules with exactly defined module settings. This enables an informative selftest of the respective module.

Calling up the selftest menu

➢ Call up the *MENU SELECT* key on the front panel of the CMU.

Select BASE in the MENU SELECT menu and confirm by means of ENTER.

Selecting the selftest

➢ The respective selftest can be selected using the SELECT softkey and the rotary knob.

The following selftests are available:

- System Test (Complete instrument test)
- BOARDTest FE (Selftest RF FRONTEND)
- BOARDTest REF (Selftest REFERENCE BOARD)
- BOARDTest DIG (Selftest DIGITAL BOARD)
- BOARDTest RXTX (Selftest RXTX1 BOARD)

Starting the selftest

➢ After selecting the selftest and confirming the selection using ENTER, the test can be started by actuating the TEST softkey and the ON key.

➢ By pressing the REPORT softkey and turning the rotary knob, the page displayed can be scrolled forward and backward.

If there are faults in this test (marked red), the fault is to be looked for and eliminated at the respective circuit parts.

Troubleshooting using the Diagnosis Menu for Modules

The diagnosis menu can be called up via the INFO key on the front panel of the CMU in each test application of the CMU. Thus, it is possible to obtain diagnostic voltages exactly for the selected test applications on the respective module and determine, for example, whether a PLL has locked.

Calling up the diagnosis menu

Call up the diagnosis menu via the INFO key on the front panel of the CMU.

Selecting the selftest for the diagnosis menu

➢ The respective selftest can be selected using the SELECT softkey and the rotary knob.

The following diagnosis menus are available:

- REFERENCE BOARD
- RF FRONTEND
- DIGITAL BOARD
- RXTX1 BOARD

Starting the test

➢ After selecting the test and confirming the selection using the ENTER key, the test can be started using the TEST softkey and the ON key.

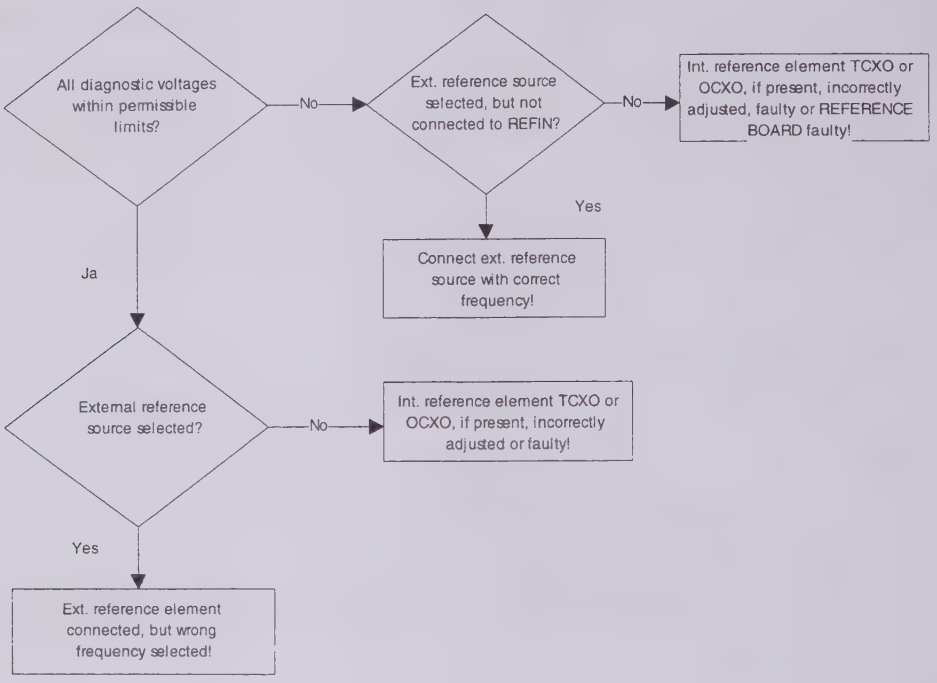
➢ By pressing the REPORT softkey and turning the rotary knob, the page displayed can be scrolled forward and backward.

Note: *Diagnostic voltages called up via the INFO key are partly dependent on the active test application used. Therefore, some voltages may be out of tolerance (red color), because this function is not used by the selected application.*

If the error situation is not clear, it may be useful to call up the selftest menu and check all diagnostic voltages of the module to determine whether there are discernible deviations. This will then enable specific troubleshooting to eliminate the fault.

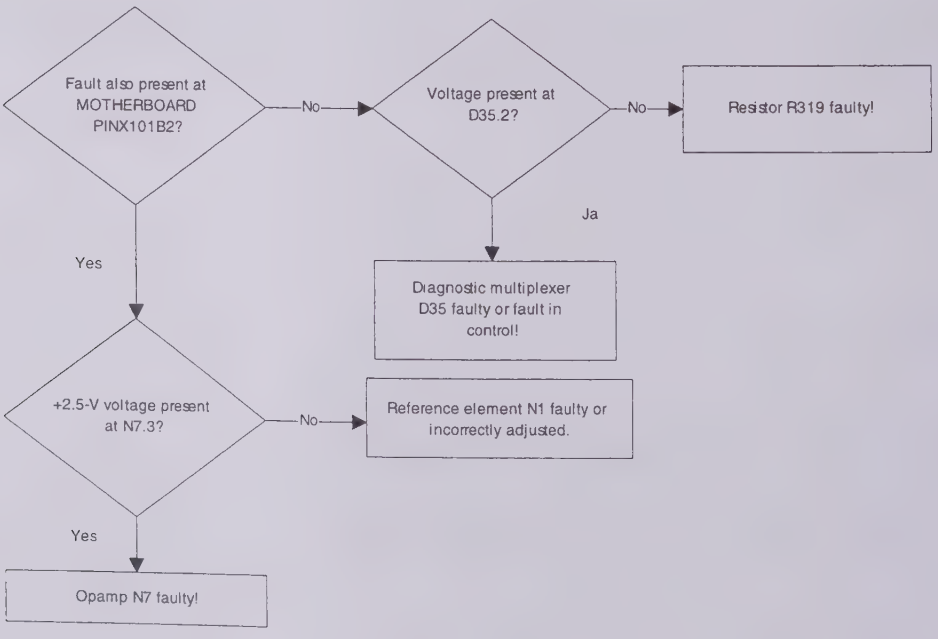
Fault: Frequency deviation of RF signal

Call up Maintenance menu via INFO key, select REFERENCE BOARD, start the diagnosis measurement using the ON key

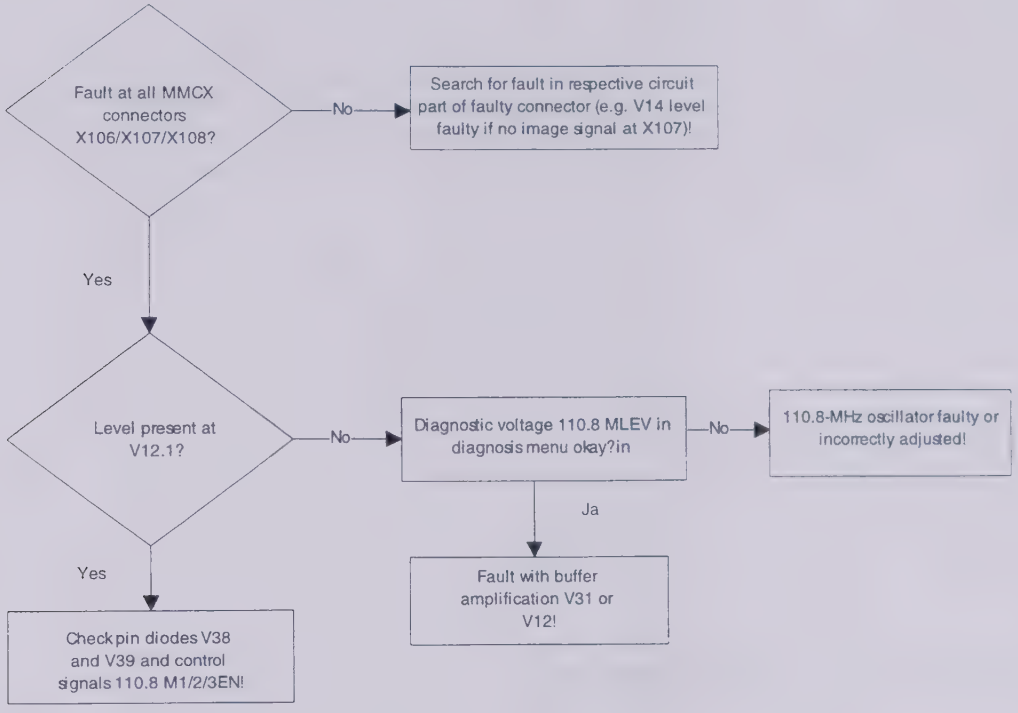


Further Troubleshooting Charts

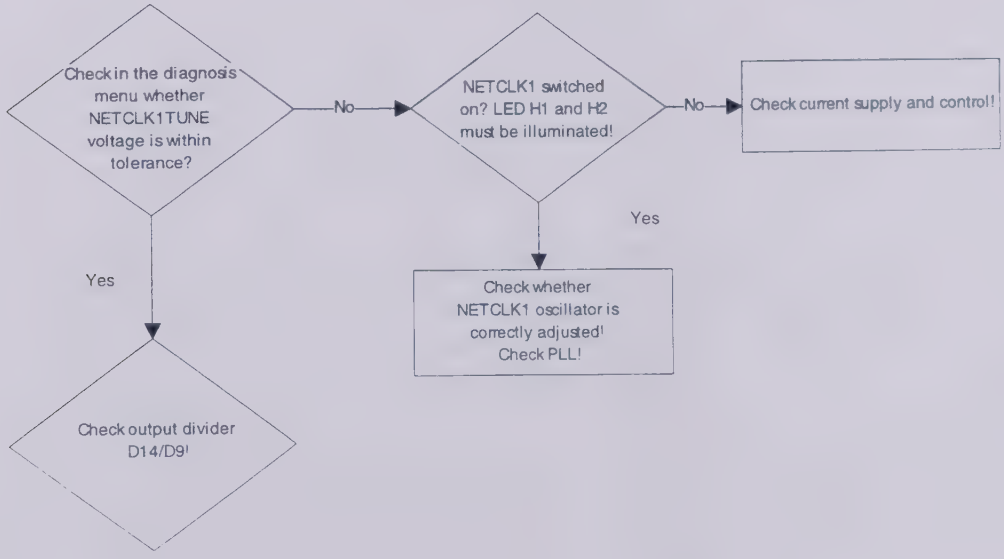
Fault: No or wrong +5 VREF voltage in diagnosis menu CMU?



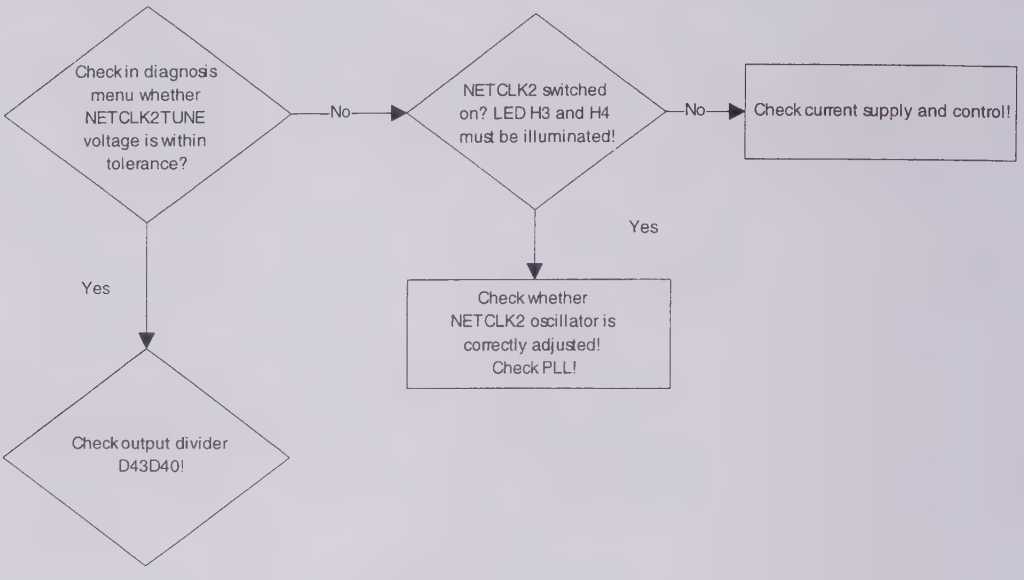
Fault: No or wrong level/frequency at X106/107/108?



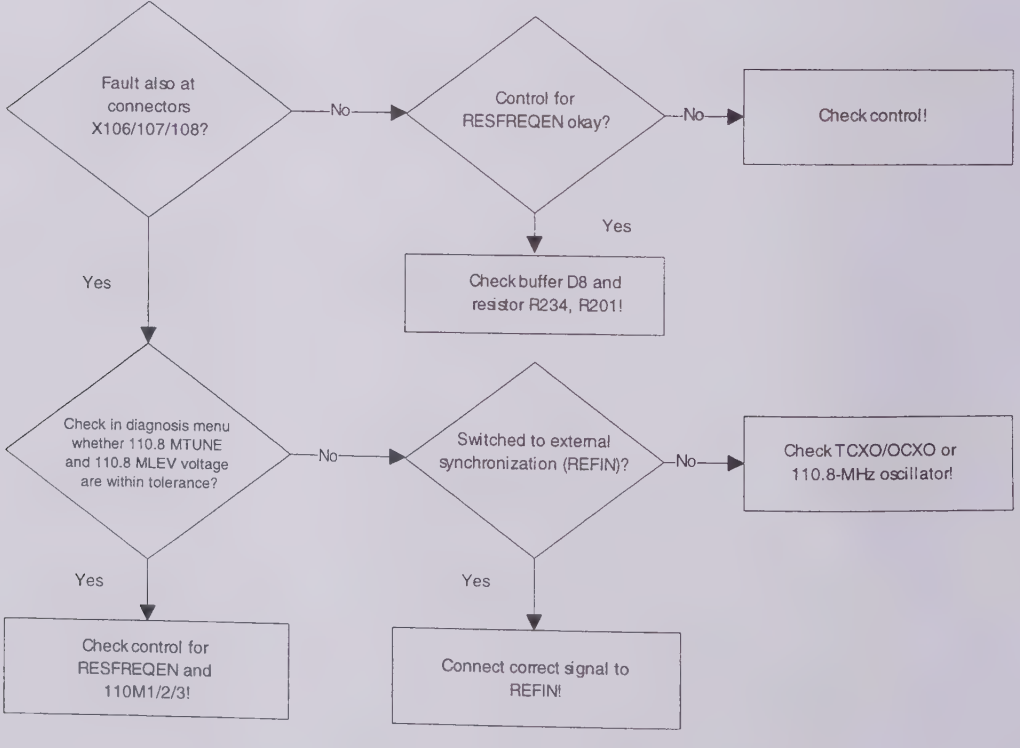
Fault: No or wrong level/frequency at X109?



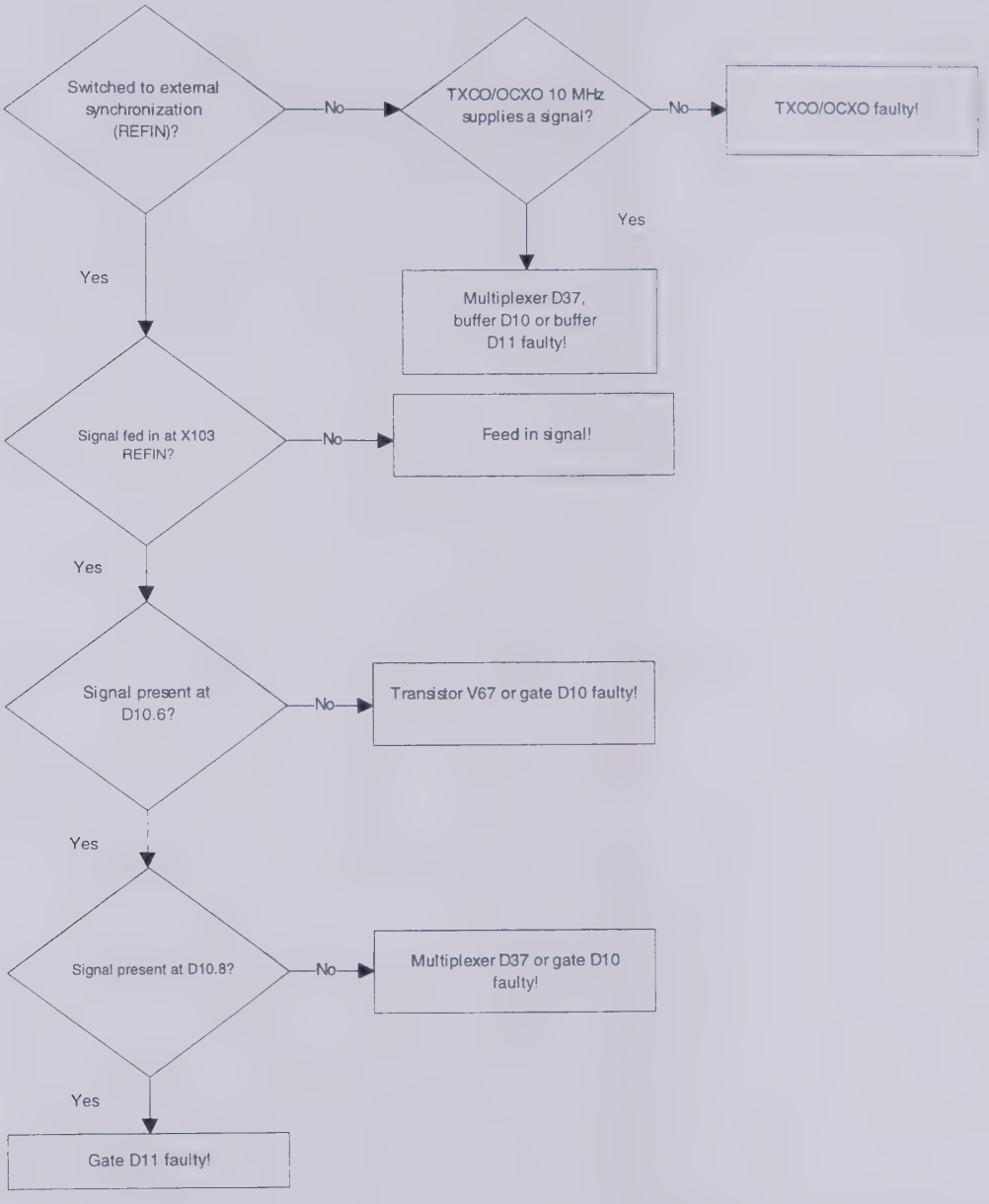
Fault: No or wrong level/frequency at X110?



Fault: No or wrong level/frequency at X105?



Fault: No or wrong level/frequency at X104?



Testing and Adjustment

Test Points

Entry in column R (direction): O = Output I = Input B = Bidirectional
Entry in column A (type) : A = Analog D = Digital P = Power
Entry in column P/T (test instruction): P = Test value T = Trim value D = Type test value E = Setting value

SIGNAL Characteristics

Designation	R	A	Value range	P T	Fig. No.	Terminal	Remark
P1			+5 VB +5.15 V ±150 mV				
P2			+7VB +6.80 V ±150 mV				
P3			+8 VREG +8.075 V ±75 mV				
P4			-5 VB -5.00 V ±75 mV				
P5			LD 0 V to 5 VDC, PLL settled from approx. 4 V.				Lock Detect output of D23, indicates whether 110.8-MHz PLL has settled.
P6			110.8-MHz signal > 3 Vpp DC:1.4 V ±0.1 V				
P7			+5 VC1 +5 V ±175 mV				
P8			DDS1OUT, 9 MHz to 12 MHz, level:-20 dBm ±2 dB MMCX test socket				
P9			+5 VD1 +5 V ±175 mV				
P10			DDS1OUT, filtered and amplified MMCX test socket, 9 MHz to 12 MHz level:-13 dBm ±2 dB				
P11			+5 VE1 +5 V ±175 mV				
P12			+5 VC2 +5 V ±175 mV				

P13			DDS2OUT, 9 MHz to 12 MHz, Level: -20dBm ±2 dB MMCX test socket				
P14			+5 VD2 +5 V ±175 mV				
P15			DDS2OUT, filtered and amplified MMCX test socket, 9 MHz to 12 MHz level:-13 dBm ±2 dB				
P16			+5 VE2 +5 V ±175 mV				
Q1			36.93M1 TTL signal				
Q2			36.93M2 TTL signal				
Q3			9 MHz to 12 MHz LOW level: <0.5 V, HIGH-level: > 2.4 V				
Q4			42 MHz to 84 MHz >2.5 Vpp± 200 mV; DC voltage: 1.4V ±0.2 V				
Q5			9 MHz to 12 MHz LOW level: <0.5 V, HIGH level: > 2.4 V				
Q6			42 MHz to 84 MHz >2.5 Vpp ±200 m V; DC voltage: 1.4 V ±0.2 V				

Jumpers

Entry in column R (direction): O = Output I = Input B = Bidirectional
Entry in column A (type) : A = Analog D = Digital P = Power
Entry in column P/T (test instruction): P =Test value T = Trim value D = Type test value E = Setting value

SIGNAL Characteristics

Designation	R	A	Value range	P T	Fig. No.	Terminal	Remark
X27.1 X27.2 X27.3			110.8 MHz PLLout **110.8** MHz PLLin GND		6		default jumper setting: X27.1/X27.2
X30.2 X30.3 X30.1 X30.4			DDS1OUT, 9 to 12 MHz DDS1OUT MMCX test socket P8 MMCX test socket P8		7		default jumper setting: X30.2/X30.3
X34.1 X34.2 X34.3			NCLK1 PLLout NCLK1 PLLin GND		9		default jumper setting: X34.1/X34.2
X40.2 X40.3 X40.1 X40.4			DDS2OUT, 9 to 12 MHz DDS2OUT MMCX test socket P13 MMCX test socket P13		10		default jumper setting: X40.2/X40.3
X42.1 X42.2 X42.3			NCLK2 PLLout NCLK2 PLLin GND		12		default jumper setting: X42.1/X42.2

Adjustment

Five adjustments are to be performed on the REFERENCE BOARD.
Three of them are only required before first use or repair of circuit parts.

The following 3 adjustments are involved:

- Trimming of amplitude of 110.8-MHz oscillator
- Trimming of NETCLK1 oscillator
- Trimming of NETCLK2 oscillator

Overview of Trimmers

Function	Test value	Adjusting value	Tolerance	Trimmer	Circuit diagram page
Trimming of reference voltage	X101 B2 against X101 B1	DC voltage: +5 V	±1 mV	R120	2
Trimming of 10MHz Reference frequency	P10 or X104	Center frequency: 10 MHz Center frequency: 10 MHz	±0.5 Hz ±0.5 Hz	R121	4
Trimming of amplitude of 110.8-MHz oscillator *	X101 B4 Diagnosis --> SW setting to 110.8M AMPLA	Voltage maximum If appropriate, use potentiometer R184 (default 33 Ω; value range 10 Ω -33 Ω) to adjust to amplitude 70 mV to 130 mV. Thus crystal tolerances are corrected.	70 mV to 130 mV	L39 R184	6
Trimming of NETCLK1 oscillator *	X109	Center frequency: 42 MHz ±0.1 MHz at 1.8 V tuning voltage on X34.2 Check: 84 MHz ±0.5 MHz at 22 V tuning voltage on X34.2	±0.1 MHz ±0.5 MHz	L50	9
Trimming of NETCLK2 oscillator *	X110	Center frequency: 42 MHz ±0.1 MHz at 1.8V tuning voltage on X42.2 Check: 84 MHz ±0.5 MHz at 22 V tuning voltage on X42.2	±0.1 MHz ±0.5 MHz	L67	12

* only when using for the first time or repairing circuit parts

Adjusting the +5-V Reference Voltage

Preparation:

- ➢ Connect DC voltmeter test cable to SMB plug X221 at the MOTHERBOARD.
- ➢ Switch on CMU and allow for a warm-up period of approx. 5 minutes.

Adjustment:

- ➢ Use potentiometer R120 on the reference board to adjust the measured value on the DC voltmeter to +5.000V ± 1 mV.

Adjusting the 10-MHz Reference Frequency

Preparation: The measurement can be taken either at connector REFOUT1 (rear of CMU) at 10 MHz or at connector RF3OUT (front) at 1 GHz using a frequency counter.

- ➢ For the measurement at connector RF3OUT set the generator to 1 GHz and 13 dBm without modulation in the RF menu.

Note: *The measurement at 1 GHz can be performed with a lower frequency counter resolution (1Hz), which accelerates the adjustment.*

For the adjustment, the CMU must be set to internal reference source. This setting is to be selected in the Sync menu of the respective application.

TCXO Adjustment

Note: *This adjustment is only required if none of the options CMU-B11 or B12 is installed.*

Adjustment:

- ➢ Use potentiometer R121 on the REFERENCE BOARD to adjust the measured value on the frequency counter to

  10.000 000 0 MHz ± 0.5 Hz (at REFOUT1)
  or
  1.000.000 000 GHz ± 50 Hz (at RF3OUT).

Adjusting the 110.8-MHz Oscillator Amplitude *

Preparation:

- Connect DC voltmeter test cable to diagnosis PIN D35.1.
- Switch on CMU and allow for a warm-up period of approx. 5 minutes.

Adjustment:

- Use L39 to adjust to voltage maximum (value: 70 to 130 mV) on the digital voltmeter and determine core.

  If required, use potentiometer R184 (default 33 Ω; value range 10 Ω -33 Ω) to adjust to an amplitude of 70 mV to 100 mV. Thus crystal tolerances can be corrected.

Adjusting the Netclock1 Oscillator *

Preparation:

- Switch on CMU and allow for a warm-up period of approx. 5 minutes (Netclock1 must be activated at a frequency of 42.1 MHz to 84 MHz).
- Pull jumper X34 and feed in external tuning voltage 0 V to 25 V at X34.2 against X34.3.
- Measure at MMCX socket X109 using spectrum analyzer.

Adjustment:

- Use L50 to adjust to 42 MHz ±0.1 MHz with a tuning voltage of 1.8 V.
- Check whether 84 MHz ±0.5 MHz are achieved with a tuning voltage of 22 V.

Adjusting the Netclock2 Oscillator *

Preparation:

- Switch on CMU and allow for a warm-up period of approx. 5 minutes (Netclock 2 must be activated at a frequency of 42.1 MHz to 84 MHz).
- Pull jumper X42 and feed in external tuning voltage 0 V to 25 V at X42.2 against X42.3.
- Measure at MMCX socket X109 using spectrum analyzer.

Adjustment:

- Use L67 to adjust to 42 MHz ±0.1 MHz with a tuning voltage of 1.8 V.
- Check whether 84 MHz ±0.5 MHz are achieved with a tuning voltage of 22 V.

* only when using for the first time or repairing circuit parts

External Interfaces

MOTHERBOARD Connector X101

Entry in column R (direction): O = Output I = Input B = Bidirectional
Entry in column A (type) : A = Analog D = Digital P = Power
Entry in column P/T (test instruction): P = Test value T = Trim value D = Type test value E = Setting value

SIGNAL Characteristics

Designation	R	A	Value range	P T	Fig. No.	Terminal	Remark
GND	B	P				A1	
+5,2 V	I	P	+5.2 V +52 mV/ -104 mV; I < 55 mA			A2	
GND	B	P				A3	
+12 V	I	P	+12 V; +600 mV/ -0 mV I < 40 mA			A4	
GND	B	P				A5	
-12 V	I	P	-12 V; -600 mV/ +0 mV I < 30 mA			A6	
GND	B	P				A7	
+8 V	I	P	+8 V; +800 mV/ -0 mV I < 1100 mA			A8	
+8 V	I	P	+8 V; +800 mV/ -0 mV; I = together with A8			A9	
GND	B	P				A10	
+28 V	I	P	+28 V ± 0.84 V; I < 20 mA			A11	
GND	B	P				A12	
GND	B	P				B1	
$+5V_{REF}$	O	A	+5 V ± 1 mV; I_{out} = max.10 mA	T		B2	
GND	B	P				B3	
DIAGNOSE	O	A	-5 V...+5 V			B4	MUX output of diagnostic voltages, default high-impedance
NC						B5	

ABISSYNCOUT	I	A	2.048 MHz, TTL level			B6	Clock signal from ABIS card
OPTOCXO1	I	D	TTL level			B7	Poll of option OCXO B1 LOW: OCXO installed HIGH: OCXO not installed
OPTOCXO2	I	D	TTL level			B8	Poll of option OCXO B2 LOW: OCXO installed HIGH: OCXO not installed
SOCXO	O	D	TTL level			B9	Switch for switching on and off Option OCXO LOW: OCXO on HIGH: OCXO off
GND	B	P				B10	
RFOCXO	I	A	10 MHz, TTL level			B11	RF signal from Option OCXO
GND	B	P				B12	
GND	B	P				C1	
SA9	I	D	TTL level			C2	ISA-bus addresses
SA8	I	D	TTL level			C3	ISA bus addresses
SA7	I	D	TTL level			C4	ISA-bus addresses
SA6	I	D	TTL level			C5	ISA-bus addresses
SA5	I	D	TTL level			C6	ISA-bus addresses
SA4	I	D	TTL level			C7	ISA-bus addresses
SA3	I	D	TTL level			C8	ISA-bus addresses
SA2	I	D	TTL level			C9	ISA-bus addresses
SA1	I	D	TTL level			C10	ISA-bus addresses
SA0	I	D	TTL level			C11	ISA-bus addresses

AEN	I	D	TTL level			C12	ISA-bus address enable, active low
GND	B	P				D1	
SD7	B	D	TTL level			D2	ISA-bus data
SD6	B	D	TTL level			D3	ISA-bus data
SD5	B	D	TTL level			D4	ISA-bus data
SD4	B	D	TTL level			D5	ISA-bus data
SD3	B	D	TTL level			D6	ISA-bus data
SD2	B	D	TTL level			D7	ISA-bus data
SD1	B	D	TTL level			D8	ISA-bus data
SD0	B	D	TTL level			D9	ISA-bus data
IOW	I	D	TTL level			D10	ISA bus write signal, active low
IOR	I	D	TTL level			D11	ISA-bus read signal, active low
RESETDRV	I	D	TTL level			D12	ISA bus reset signal, active low

RF Coaxial Connectors

Entry in column R (direction): O = Output I = Input B = Bidirectional
Entry in column A (type) : A = Analog D = Digital P = Power
Entry in column P/T (test instruction): P = Test value T = Trim value D = Type test value E = Setting value

SIGNAL characteristics

Designation	R	A	Value range	P T	Fig. No.	Terminal	Remark
RFOCXO	I	A	10 MHz TTL level			X102 MMCX	Reserved Input
REFIN	I	A	10 kHz...1 MHz step 100 Hz, TTL level; 1 MHz...52 MHz step 100 Hz; 0.5 V...2 Vrms (7 dBm ..+19 dBm) at 50 Ω;input impedance 50 Ω; frequency deviation ±5 ppm			X103 MMCX	Reference-frequency input from rear panel
REFOUT1	O	A	10 MHz or REFIN; 0.5 V...2 Vrms (>1.4 Vpp) at 50 Ω; output impedance 50 Ω			X104 MMCX	Reference-frequency output to rear panel
RESFREQ	O	A	TTL level, output impedance approx. 3 Ω, 27.7 MHz			X105 MMCX	internal reference frequency reserved for options
110,8M1	O	A	> 0.4 Vrms (+5 dBm) at 50 Ω; output impedance 50 Ω			X106 MMCX	internal reference frequency to RXTX-BOARD1
110,8M2	O	A	> 0.4 Vrms (+5dBm) at 50 Ω; output impedance 50 Ω			X107 MMCX	internal reference frequency to RXTX-BOARD2
110,8M3	O	A	> 0.4 Vrms (+5 dBm) at 50 Ω; output impedance 50 Ω			X108 MMCX	internal reference frequency to Digital Board
NETCLK1	O	D	21 MHz...84 MHz; TTL level, output impedance approx. 3 Ω			X109 MMCX	internal netclk frequency to Digital Board
NETCLK2	O	D	21 MHz...84 MHz; TTL level, output impedance approx. 3 Ω			X110 MMCX	internal netclk frequency to Digital Board

ROHDE&SCHWARZ

Schaltteillisten
Stromläufe
Bestückungspläne

Part lists
Circuit diagrams
Component plans

Listes des pièces détachées
Schémas de circuit
Plans des composants

095.1000 Bl. 2

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
.	XX VARIANTENERKLAERUNG IDENTIFICATION OF MODELS				
B1	EQ 110,8MHZ 3.0T HC52-6 QUARTZ CRYSTAL UNIT	1100.4290.00	KVG	EQ 1100.4290	
B2	EO 10MHZ-QU.OSZ.VTCXO 5V	1100.4332.00	MILLIREN	474-0135	
C1	CC 470PF+-5%500V NPO 1206 CERAMIC CHIP CAPACITOR	0007.8788.00	AVX	1206 7A 471JAT2	
C2	CC 180PF+-1% 50V NPO 0603 SMD-CERAMIC-CAPACITOR	1097.6305.00	MURATA	GRM39COG***F50ZPT	
C3	CC 680PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7375.00	MURATA	GRM42-6COG 681F 50PT	
C4 ..7	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C8	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C9	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C10	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C11	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C12 ..18	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C19	CC 180PF+-1% 50V NPO 0603 SMD-CERAMIC-CAPACITOR	1097.6305.00	MURATA	GRM39COG***F50ZPT	
C20	CC 68PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	0009.9746.00	MURATA	GRM39COG***F50ZPT	
C21	CC 68PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	0009.9746.00	MURATA	GRM39COG***F50ZPT	
C22	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C23 ..26	CC 33NF+-10% 25V HDK 0603 CERAMIC CHIP CAPACITOR	1051.4697.00	AVX	CM105X7R333K25VAT	
C27	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C28	CC 33NF+-10% 25V HDK 0603 CERAMIC CHIP CAPACITOR	1051.4697.00	AVX	CM105X7R333K25VAT	
C29	CC 33NF+-10% 25V HDK 0603 CERAMIC CHIP CAPACITOR	1051.4697.00	AVX	CM105X7R333K25VAT	
C30	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C31	CC 33NF+-10% 25V HDK 0603 CERAMIC CHIP CAPACITOR	1051.4697.00	AVX	CM105X7R333K25VAT	
C32	CC 33NF+-10% 25V HDK 0603 CERAMIC CHIP CAPACITOR	1051.4697.00	AVX	CM105X7R333K25VAT	
C33	CK 68NF +-5% 25V PPS 2220 METALLIZED PPS-CAP.SMD	1051.4897.00	PHILIPS_CO	2222 393 29683	
C34	CC 1NF+-1% 50V NPO 1206 SMD CERAMIC CAPACITOR	CC 0007.7398.00	AVX	1206 5A 102 FAT00J	
C35	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C36	CC 10PF+-0,1 50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C37	CC 180PF+-1% 50V NPO 0603 SMD-CERAMIC-CAPACITOR	1097.6305.00	MURATA	GRM39COG***F50ZPT	
C38	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C40	CC 1,0PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	0009.8304.00	MURATA	GRM39COG***B50ZPT	
C41	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C43	CC 10PF+-0,1 50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C44	CC 10PF+-0,1 50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C45	CC 10PF+-0,1 50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C46	CC 10PF+-0,1 50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C48	CC 68PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	0009.9746.00	MURATA	GRM39COG***F50ZPT	
C49	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C50	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	

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1CMK 768 3PLU	Äl	Datum Date	Schaltteilliste für Parts list for	Sachnummer Stock No.	Blatt-Nr. Page
ROHDE&SCHWARZ	10	30.03.99	EE REFERENCE BOARD	1100.2600.01 SA	1+

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C51	CC 150PF+-1% 50V NPO 0603 MD-CERAMIC-CAPACITOR	1051.4680.00	MURATA	GRM39C0G***F50ZPT	
C52	CC 22UF+80-20% 10V 1210	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
..58	CERAMIC CAPACITOR				
C59	CC 27PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	0010.9323.00	MURATA	GRM39C0G***F50ZPT	
C60	CC 330PF+-5%500V NPO 1206 CERAMIC CHIP CAPACITOR	0007.8771.00	AVX	1206 7A 331JAT2	
C61	CC 330PF+-5%500V NPO 1206 CERAMIC CHIP CAPACITOR	0007.8771.00	AVX	1206 7A 331JAT2	
C62	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C63	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C64	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C65	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C66	CC 470NF+-10%50V X7R 1812 CERAMIC CHIP CAPACITOR	CC 0007.7498.00	AVX	1812 5C 474KA T00F	
C67	CC 1,8PF0,1PF50V NPO 0603 MD-CERAMIC-CAPACITOR	0009.4473.00	MURATA	GRM39C0G***B50ZPT	
C68	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C69	CE 1UF +-10% 25V EIA3528 TANTALUM SMD-CAPACITOR	CE 0007.7217.00	SPRAGUE	293D 105 X9 025 B2T	
C70	CE 1UF +-10% 10V 1206 TANTALUM-SMD-CAPACITOR	CE 0007.7252.00	SPRAGUE	293D 105 X9 010 D2T	
C71	CE 1UF +-10% 25V EIA3528 TANTALUM SMD-CAPACITOR	CE 0007.7217.00	SPRAGUE	293D 105 X9 025 B2T	
C72	CE 1UF +-10% 10V 1206 TANTALUM-SMD-CAPACITOR	CE 0007.7252.00	SPRAGUE	293D 105 X9 010 D2T	
C73	CE 10UF+-20%35V RUND SMD SMD-ELECTROLYTIC CAPACIT.	CE 0009.5605.00	PANASONIC	EEV HB 1V 100X	
C74	CE 1UF +-10% 25V EIA3528 TANTALUM SMD-CAPACITOR	CE 0007.7217.00	SPRAGUE	293D 105 X9 025 B2T	
C75	CE 1UF +-10% 10V 1206 TANTALUM-SMD-CAPACITOR	CE 0007.7252.00	SPRAGUE	293D 105 X9 010 D2T	
C76	CE 1UF +-10% 10V 1206 TANTALUM-SMD-CAPACITOR	CE 0007.7252.00	SPRAGUE	293D 105 X9 010 D2T	
C77	CC 330PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8873.00	AVX	1206 5A 331 F 3	
C78	CC 4,7PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	0009.4538.00	MURATA	GRM39C0G***B50ZPT	
C79	CE 10UF+-20%35V RUND SMD SMD-ELECTROLYTIC CAPACIT.	CE 0009.5605.00	PANASONIC	EEV HB 1V 100X	
C80	CC 82PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	1097.6363.00	MURATA	GRM39C0G***F50ZPT	
C81	CE 1UF +-10% 10V 1206	CE 0007.7252.00	SPRAGUE	293D 105 X9 010 D2T	
..83	TANTALUM-SMD-CAPACITOR				
C84	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C85	CC 470NF+-10%50V X7R 1812 CERAMIC CHIP CAPACITOR	CC 0007.7498.00	AVX	1812 5C 474KA T00F	
C86	CK 470NF+-5% 40VAC SMD SMD-FILM-CAPACITOR	2035.8981.00	ROEDERSTEI	MKT 1824-447/064	
C87	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C88	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C89	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..122	CERAMIC CHIP CAPACITOR				
C123	CC 470NF+-10%50V X7R 1812 CERAMIC CHIP CAPACITOR	CC 0007.7498.00	AVX	1812 5C 474KA T00F	
C124	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..127	CERAMIC CHIP CAPACITOR				
C128	CC 2,2UF+-15% 16VX7R 1206 CERAMIC CAPACITOR	1090.4188.00	TAIYO_JUDE	EMK316BJ225KL	
C129	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..159	CERAMIC CHIP CAPACITOR				
C160	CE 100UF+-20%16V RUND SMD	CE 0009.6553.00	SANYO	16CV100F(G)S	
..166	SMD-ELECTOLYTIC CAPACIT.				
C167	CC 2,2NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4767.00	MURATA	GRM39X7R***K5C500PT*	
C168	CC 2,2NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4767.00	MURATA	GRM39X7R***K5C500PT*	
C169	CC 1,0NF+-10%50V HDK 0603	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
..178	SMD-CERAMIC-CAPACITOR				

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Kennz. Comp No.	Benennung Designation	Sachnummer Stock No	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C179	CC 39PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	0009.9730.00	MURATA	GRM39C0G***F50ZPT	
C180	CE 10UF+-20%35V RUND SMD SMD-ELECTROLYTIC CAPACIT.	CE 0009.5605.00	PANASONIC	EEV HB 1V 100X	
C181	CC 270PF+-10% 50VHDK 0603 SMD CERAMIC CAPACITOR	1097.6370.00	VITRAMON	VJ0603Y***KXAT	
C182	CC 2,2PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	0009.4467.00	MURATA	GRM39C0G***B50ZPT	
C183	CC 470PF+-5%500V NPO 1206 CERAMIC CHIP CAPACITOR	0007.8788.00	AVX	1206 7A 471JAT2	
C184	CC 180PF+-1% 50V NPO 0603 SMD-CERAMIC-CAPACITOR	1097.6305.00	MURATA	GRM39C0G***F50ZPT	
C185	CC 680PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7375.00	MURATA	GRM42-6C0G 681F 50PT	
C186 ..192	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C193	CC 10PF+-0,1 50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C194	CC 68PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	0009.9746.00	MURATA	GRM39C0G***F50ZPT	
C195	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C196	CC 33NF+-10% 25V HDK 0603 CERAMIC CHIP CAPACITOR	1051.4697.00	AVX	CM105X7R333K25VAT	
C197	CC 33NF+-10% 25V HDK 0603 CERAMIC CHIP CAPACITOR	1051.4697.00	AVX	CM105X7R333K25VAT	
C198	CC 1NF+-1% 50V NPO 1206 SMD CERAMIC CAPACITOR	CC 0007.7398.00	AVX	1206 5A 102 FAT00J	
C199	CC 68PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	0009.9746.00	MURATA	GRM39C0G***F50ZPT	
C200	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C201	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C202	CC 150PF+-1% 50V NPO 0603 MD-CERAMIC-CAPACITOR	1051.4680.00	MURATA	GRM39C0G***F50ZPT	
C203 ..207	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C208	CC 330PF+-5%500V NPO 1206 CERAMIC CHIP CAPACITOR	0007.8771.00	AVX	1206 7A 331JAT2	
C209	CC 330PF+-5%500V NPO 1206 CERAMIC CHIP CAPACITOR	0007.8771.00	AVX	1206 7A 331JAT2	
C210	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C211	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C212	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C213	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C214	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C215	CE 1UF +-10% 25V EIA3528 TANTALUM SMD-CAPACITOR	CE 0007.7217.00	SPRAGUE	293D 105 X9 025 B2T	
C216	CE 1UF +-10% 10V 1206 TANTALUM-SMD-CAPACITOR	CE 0007.7252.00	SPRAGUE	293D 105 X9 010 D2T	
C217	CE 1UF +-10% 10V 1206 TANTALUM-SMD-CAPACITOR	CE 0007.7252.00	SPRAGUE	293D 105 X9 010 D2T	
C218	CC 330PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8873.00	AVX	1206 5A 331 F 3	
C219	CE 10UF+-20%35V RUND SMD SMD-ELECTROLYTIC CAPACIT.	CE 0009.5605.00	PANASONIC	EEV HB 1V 100X	
C220 ..237	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C238	CE 100UF+-20%16V RUND SMD SMD-ELECTOLYTIC CAPACIT.	CE 0009.6553.00	SANYO	16CV100F(G)S	
C239	CC 2,2NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4767.00	MURATA	GRM39X7R***K5C500PT*	
C240	CC 2,2NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4767.00	MURATA	GRM39X7R***K5C500PT*	
C241 ..245	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C246	CC 39PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	0009.9730.00	MURATA	GRM39C0G***F50ZPT	
C247	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C248	CC 10PF+-0,1 50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C249	CC 15PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	0009.8227.00	MURATA	GRM39COG***F50ZPT	
C250	CC 15PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	0009.8227.00	MURATA	GRM39COG***F50ZPT	
C251	CC 470NF+-10%50V X7R 1812 CERAMIC CHIP CAPACITOR	CC 0007.7498.00	AVX	1812 5C 474KA T00F	
C252	CE 1UF +-10% 10V 1206 TANTALUM-SMD-CAPACITOR	CE 0007.7252.00	SPRAGUE	293D 105 X9 010 D2T	
C253 ..260	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C261	CC 3,9PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	0009.4509.00	MURATA	GRM39COG***B50ZPT	
C262	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C263	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C264	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C265	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C268	CC 2,2UF+-15% 16VX7R 1206 CERAMIC CAPACITOR	1090.4188.00	TAIYO_JUDE	EMK316BJ225KL	
C269	CE 100UF+-20%16V RUND SMD SMD-ELECTOLYTIC CAPACIT.	CE 0009.6553.00	SANYO	16CV100F(G)S	
C270	CC 2,2UF+-15% 16VX7R 1206 CERAMIC CAPACITOR	1090.4188.00	TAIYO_JUDE	EMK316BJ225KL	
C271	CC 2,2UF+-15% 16VX7R 1206 CERAMIC CAPACITOR	1090.4188.00	TAIYO_JUDE	EMK316BJ225KL	
C272	CE 100UF+-20%16V RUND SMD SMD-ELECTOLYTIC CAPACIT.	CE 0009.6553.00	SANYO	16CV100F(G)S	
C273	CE 100UF+-20%16V RUND SMD SMD-ELECTOLYTIC CAPACIT.	CE 0009.6553.00	SANYO	16CV100F(G)S	
C274	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
D1	BC X24164S8I-2.7 IC MEMORY	0048.4258.00	XICOR	X24164S G	
D2	BL 74LVT245DB 8XTRANS 3S OCTAL TRANSCEIVER 3-STATE	0048.3274.00	PHILIPS_SE	74LVT245(DB)	
D3 ..6	BL 74LVT273DB 8XD-FF 3.3V OCTAL D FLIP-FLOP	1100.4284.00	PHILIPS_SE	(74)LVT273(DB)	
D7	BL AD9830AST DD-SYNTH IC DD-SYNTHEZIZER	2020.6336.00	ANALOG_DEV	AD9830AST	
D8	BL 74ACT00SC 4X 2-NAND IC QUAD 2INP NAND GATE	BL 0008.0668.00	RCA	CD74ACT00M	
D9	BL 74ACT00SC 4X 2-NAND IC QUAD 2INP NAND GATE	BL 0008.0668.00	RCA	CD74ACT00M	
D10	BL 74AC00SC 4X2IN NAND QUAD NAND GATE	BL 0820.3477.00	FAIRCHILD	74AC00SC	
D11	BL 74AC00SC 4X2IN NAND QUAD NAND GATE	BL 0820.3477.00	FAIRCHILD	74AC00SC	
D12 ..14	BL 74ACT74SC 2XRSFLIPFLOP IC DUAL D-FLIPFLOP	BL 0008.0680.00	TOSHIBA	(TC74)ACT74(FN)	
D15	BL 74ACT257SC 4X 2INP MUX IC QUAD 2INP MULIPLEXER	BL 1051.4174.00	NSC	74ACT257SC	
D17	BL PC74HCT390T 2X4B COUNT DECADE COUNTER	BL 0007.6685.00	PHILIPS_SE	(PC)74HCT390(D/T)	
D18	BO LT1117CSTLOWDROP+VREGL VOLTAGE REGULATOR	1036.4283.00	LINEAR_TEC	LT1117(CST)	
D19	BL 74LVT04DB 6XINV. 3.3V HEX INVERTER	0048.3174.00	PHILIPS_SE	74LVT04DB	
D20	BL 74ACT109SC 2XJK-FLIPFL IC J-K P-EDGE TRIG FLIPFL	1097.6605.00	NSC	(74)ACT109(SC)	
D21	BL UPB584G 2:1 PRESC PRESCALER	2004.7790.00	NEC	(UPB)584(G)	
D22	BL 74AC169SC 4B BIN CNT IC 4BIT BIN U/D COUNTER	BL 0009.5686.00	NSC	(74)AC169(SC)	
D23	BL PMB2306T SYNTH IC SYNTHSIZER	4040.0536.00	SIEMENS	PMB2306T	
D24 ..29	BL PC74HCT273T 8XD-FF OCTAL D-TYPE FLIPFLOP	BL 0007.6610.00	PHILIPS_SE	(PC)74HCT273(D/T)	
D30	BL PC74HCT688T 8B.COMPAR. MAGNITUDE COMPARATOR	BL 0007.6762.00	PHILIPS_SE	(PC)74HCT688(D/T)	
D31	BL 74LVT125DB 4XBUFF. 3S 3.3V QUAD BUFFER 3 STATE	0048.3239.00	PHILIPS_SE	74LVT125(DB)	
D32 ..34	BL 74LVC138DB 3TO8 DEC LINE DECODER	1104.2592.00	PHILIPS_SE	74LVC138(DB)	

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Kennz Comp. No.	Benennung Designation	Sachnummer Stock No	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
D35	BL PC74HCT4051T 8CH.A.MUX ANALOG MULTIPLEXER	BL 0007.6827.00	PHILIPS	(PC)74HCT4051(T)	
D36	BL 74LVC244ADB 2X4 BUF/DR IC 74LVC244ADB	4052.5309.00	PHILIPS_SE	74LVC244A(DB)	
D37	BL 74ACT153SC 2X 4-IN MUX IC DUAL 4INP MULTIPLEX	BL 1012.9404.00	HARRIS	(CD74)ACT153(M)	
D38	BL 74ACT153SC 2X 4-IN MUX IC DUAL 4INP MULTIPLEX	BL 1012.9404.00	HARRIS	(CD74)ACT153(M)	
D39	BL AD9830AST DD-SYNTH IC DD-SYNTHEZIZER	2020.6336.00	ANALOG_DEV	AD9830AST	
D40	BL 74ACT00SC 4X 2-NAND IC QUAD 2INP NAND GATE	BL 0008.0668.00	RCA	CD74ACT00M	
D41 ..43	BL 74ACT74SC 2XRSFLIPFLOP IC DUAL D-FLIPFLOP	BL 0008.0680.00	TOSHIBA	(TC74)ACT74(FN)	
D44	BL 74ACT257SC 4X 2INP MUX IC QUAD 2INP MULIPLEXER	BL 1051.4174.00	NSC	74ACT257SC	
D45	BL UPB584G 2:1 PRESC PRESCALER	2004.7790.00	NEC	(UPB)584(G)	
D46	BL 74AC169SC 4B BIN CNT IC 4BIT BIN U/D COUNTER	BL 0009.5686.00	NSC	(74)AC169(SC)	
D47	BL PC74HCT273T 8XD-FF OCTAL D-TYPE FLIPFLOP	BL 0007.6610.00	PHILIPS_SE	(PC)74HCT273(D/T)	
D48	BL 74AHC1G04DBVR SINGLE/INVERTER GATE	1100.4710.00	TEXAS_INST	(SN74)AHC1G04(DBVR)	
D49	BL 74ACT74SC 2XRSFLIPFLOP IC DUAL D-FLIPFLOP	BL 0008.0680.00	TOSHIBA	(TC74)ACT74(FN)	
D50	BL 74AHC1G04DBVR SINGLE/INVERTER GATE	1100.4710.00	TEXAS_INST	(SN74)AHC1G04(DBVR)	
D51	BL 74AHC1G04DBVR SINGLE/INVERTER GATE	1100.4710.00	TEXAS_INST	(SN74)AHC1G04(DBVR)	
H1 ..4	AF LSS269BO SUPERROT LED LED	0009.8356.00	SIEMENS	LS S269-BO(-Q1566)	
L1	LD 47NH 10% 0,51A 1210 SMD-INDUCTOR	0008.5976.00	SIEMENS	B82422-A3470-J(K)100	
L2	LD 47NH 2%0R13 1A 1206 CERAMIC CHIP COIL	0048.4570.00	COILCRAFT	1206CS-470XGBC	
L3	LD 680NH 10% 0,14A 1210 CHIP COIL	LD 0690.9195.00	SIEMENS	B82422-A3681-J(K)100	
L4	LD 560NH 10% 0,15A 1210 CHOKE	4032.4388.00	SIEMENS	B82422-A3561-J(K)100	
L5	LD 180NH 1%R 0.70A 1206 CERAMIC CHIP COIL	0048.4693.00	COILCRAFT	1206CS-181XFBC	
L6	LD 2,2UH 10% 0,27A 1210 SMD-INDUCTOR	LD 0520.7870.00	SIEMENS	B82422-A1222-J(K)100	
L7	LD 120NH 1%0R26 0.8A 1206 CERAMIC CHIP COIL	0048.4629.00	COILCRAFT	1206CS-121XFBC	
L8 ..11	LD 2,2UH 10% 0,27A 1210 SMD-INDUCTOR	LD 0520.7870.00	SIEMENS	B82422-A1222-J(K)100	
L12	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L13	LD 10UH 10% 0,18A 1210 SMD-INDUCTOR	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L14 ..30	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L31	LD 33UH 10% 0,10A 1210 SMD-INDUCTOR	LD 0009.3583.00	SIEMENS	B82422-A1333-J(K)100	
L32	LD 1,2UH 10% 0,37A 1210 SMD-INDUCTOR	1097.6311.00	SIEMENS	B82422-A1122-J(K)100	
L33	LD 10NH 10% 0,75A 1210 CHOKE	1065.8831.00	SIEMENS	B82422-A3100-J(K)100	
L34	LD 470NH 10% 0,15A 1210 SMD-INDUCTOR	LD 0007.9926.00	SIEMENS	B82422-A3471-J(K)100	
L35	LD SP-DROSSEL 47UH 1,5A CHOKE	1081.0331.00	SUMIDA	CDR125-470	
L36	LD 1MH 10% 5MA 1210 SMD-INDUCTOR	0520.7757.00	TDK	ACL 3225S-102K-T	
L37	LD 1MH 10% 5MA 1210 SMD-INDUCTOR	0520.7757.00	TDK	ACL 3225S-102K-T	
L38	LD 330NH 1%R 0.59A 1206 CERAMIC CHIP COIL	0048.4687.00	COILCRAFT	1206CS-331XFBC	
L39	LD 90 NH SMD-ABGL.Q5,1H5 SMD-VHF-COIL	0008.9513.00	COMPONEX	E 558 CN-10 0023	
L40	LD 47NH 10%0R08 1,3A 1010 CHIP-COIL	0920.0033.00	STETTNER	5501 4702200	
L41	LD 10UH 10% 0,18A 1210 SMD-INDUCTOR	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
L42	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L43 ..49	LD 10UH 10% 0,18A 1210 SMD-INDUCTOR	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L50	LD 142NH SMD-ABGL.Q5,1H5 SMD-VHF-COIL	0008.9559.00	COMPONEX	E 558 CN-10 0025	
L51	LD 68ONH 10% 0,14A 1210 CHIP COIL	LD 0690.9195.00	SIEMENS	B82422-A3681-J(K)100	
L52	LD 56ONH 10% 0,15A 1210 CHOKE	4032.4388.00	SIEMENS	B82422-A3561-J(K)100	
L53 ..55	LD 2,2UH 10% 0,27A 1210 SMD-INDUCTOR	LD 0520.7870.00	SIEMENS	B82422-A1222-J(K)100	
L56	LD 33UH 10% 0,10A 1210 SMD-INDUCTOR	LD 0009.3583.00	SIEMENS	B82422-A1333-J(K)100	
L57	LD 1,2UH 10% 0,37A 1210 SMD-INDUCTOR	1097.6311.00	SIEMENS	B82422-A1122-J(K)100	
L58	LD 10NH 10% 0,75A 1210 CHOKE	1065.8831.00	SIEMENS	B82422-A3100-J(K)100	
L59	LD 1MH 10% 5MA 1210 SMD-INDUCTOR	0520.7757.00	TDK	ACL 3225S-102K-T	
L60	LD 1MH 10% 5MA 1210 SMD-INDUCTOR	0520.7757.00	TDK	ACL 3225S-102K-T	
L61	LD 47NH 10%OR08 1,3A 1010 CHIP-COIL	0920.0033.00	STETTNER	5501 4702200	
L62 ..66	LD 10UH 10% 0,18A 1210 SMD-INDUCTOR	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L67	LD 142NH SMD-ABGL.Q5,1H5 SMD-VHF-COIL	0008.9559.00	COMPONEX	E 558 CN-10 0025	
L68 ..73	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
N1	BO AD780AR 2V/53VO VREF IC VOLTAGE REFERENCE	1081.0131.00	ANALOG_DEV	AD780AR	
N2	BL PMB2312 1:129MAX PRESC IC PRESCALER	2024.1397.00	SIEMENS	PMB2312T	
N3	BO OP27GS LN OPAMP OPAMP	6024.3214.00	PMI	OP27G(S)	
N4	BO MC1458D 2X OPAMP OPERATION AMPLIFIER	0007.3763.00	SIGNETICS	MC1458(D)	
N5	BM SNA286 DC-6,5G MMIC MIKROWAVE MONOLITIC AMPL	1097.6286.00	STANFORD	SNA-286	
N6	BO NE5534AD LN OPAMP IC OPAMP	1011.5528.00	SIGNETICS	NE5534A(D)	
N7	BO OPO7CS8 OPAMP OPERATIONAL AMPLIFIER	0007.7781.00	LINEAR_TEC	LT1001(CS8)	
N8	BM SNA286 DC-6,5G MMIC MIKROWAVE MONOLITIC AMPL	1097.6286.00	STANFORD	SNA-286	
N9	BO NE5534AD LN OPAMP IC OPAMP	1011.5528.00	SIGNETICS	NE5534A(D)	
N10	BO OPO7CS8 OPAMP OPERATIONAL AMPLIFIER	0007.7781.00	LINEAR_TEC	LT1001(CS8)	
P1 ..7	VL EINPRESSSTIFT 5,6 PIN	VL 0010.7250.00	AMP	1-928776-5	
P8	FJ EINLOETBUCHSE MMCX SMD CONNECTOR	1075.4045.00	SUHNER	82MMCX-S50-0-51/1110	
P9	VL EINPRESSSTIFT 5,6 PIN	VL 0010.7250.00	AMP	1-928776-5	
P10	FJ EINLOETBUCHSE MMCX SMD CONNECTOR	1075.4045.00	SUHNER	82MMCX-S50-0-51/1110	
P11	VL EINPRESSSTIFT 5,6 PIN	VL 0010.7250.00	AMP	1-928776-5	
P12	VL EINPRESSSTIFT 5,6 PIN	VL 0010.7250.00	AMP	1-928776-5	
P13	FJ EINLOETBUCHSE MMCX SMD CONNECTOR	1075.4045.00	SUHNER	82MMCX-S50-0-51/1110	
P14	VL EINPRESSSTIFT 5,6 PIN	VL 0010.7250.00	AMP	1-928776-5	
P15	FJ EINLOETBUCHSE MMCX SMD CONNECTOR	1075.4045.00	SUHNER	82MMCX-S50-0-51/1110	
P16	VL EINPRESSSTIFT 5,6 PIN	VL 0010.7250.00	AMP	1-928776-5	
R1	RG 47OK +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7120.00	DRALORIC	CR 0603	
R2	RG 39K2 +-1% TK200 0603 SMD-REGISTER	0010.9823.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R3	RG 100R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5334.00	DRALORIC	CR 0603	
R4	RG 100R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5334.00	DRALORIC	CR 0603	
R5	RG 100R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5334.00	DRALORIC	CR 0603	
R6	RG 100R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5334.00	DRALORIC	CR 0603	
R7	RG 100R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5334.00	DRALORIC	CR 0603	
R8	RG 100R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5334.00	DRALORIC	CR 0603	
R9	RG 100R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5334.00	DRALORIC	CR 0603	
R10	RG 100R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5334.00	DRALORIC	CR 0603	
R11	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R12 ..14	RG 100R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5334.00	DRALORIC	CR 0603	
R15	RG 220R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6953.00	DRALORIC	CR 0603	
R16 ..29	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R30	RG 1MO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5370.00	DRALORIC	CR 0603	
R31	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R32	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R33	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R34	RG 2KO +-1% TK200 SMD RESISTOR	0603	1097.6328.00	DRALORIC	CR 0603	
R35	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R36	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R37	RG 2KO +-1% TK200 SMD RESISTOR	0603	1097.6328.00	DRALORIC	CR 0603	
R38	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R39	RG 2KO +-1% TK200 SMD RESISTOR	0603	1097.6328.00	DRALORIC	CR 0603	
R40	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R41	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R42	RG 2KO +-1% TK200 SMD RESISTOR	0603	1097.6328.00	DRALORIC	CR 0603	
R43	RG 0-OHM WIDERSTAND 0-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R44 ..48	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R49	RG 1K82 +-1% TK200 SMD-RESISTOR EIA0603	0603	0010.8404.00	DRALORIC	CR 0603	
R50	RG 5K11 +-1% TK200 SMD RESISTOR	0603	1097.6334.00	DRALORIC	CR 0603	
R51 ..62	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R63	RG 16,2K +-1% TK200 RESISTOR	0603	1093.6130.00	DRALORIC	CR 0603	
R64 ..73	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R74	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R75	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R76	RG 301 OHM+-1%TK100 RESISTOR CHIP	1206	RG 0007.5643.00	PHILIPS_CO	RC02	
R77 ..80	RG 2K74 +-1% TK200 SMD-RESISTOR EIA0603	0603	0010.8410.00	DRALORIC	CR 0603	
R81	RG 56R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.9646.00	DRALORIC	CR 0603	
R82	RG 20R +-1% TK200 SMD-RESISTOR EIA0603	0603	0048.5525.00	DRALORIC	CR 0603	
R83	RG 680R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6982.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R84	RG 470R +-1% TK200	0603	0009.6976.00	DRALORIC	CR 0603	
..86	SMD-RESISTOR EIA0603					
R87	RG 200R +-1% TK200	0603	1097.6386.00	DRALORIC	CR 0603	
	SMD RESISTOR					
R88	RG 200R +-1% TK200	0603	1097.6386.00	DRALORIC	CR 0603	
	SMD RESISTOR					
R89	RG 39K2 +-1% TK200	0603	0010.9823.00	DRALORIC	CR 0603	
	SMD-REGISTER					
R90	RG 200R +-1% TK200	0603	1097.6386.00	DRALORIC	CR 0603	
..95	SMD RESISTOR					
R96	RG 1K5 +-1% TK200	0603	0009.6999.00	DRALORIC	CR 0603	
..98	SMD-RESISTOR EIA0603					
R99	RG 1K21 +-1% TK200	0603	0010.9817.00	DRALORIC	CR 0603	
	SMD-REGISTER					
R100	RG 13K +-1% TK200	0603	1097.6428.00	DRALORIC	CR 0603	
	SMD RESISTOR					
R101	RG 10,0 OHM+-1%TK100	1206	RG 0006.8649.00	PHILIPS_CO	RC02	
..104	CHIP -RESISTOR					
R105	RG 560R +-1% TK200	0603	0009.9630.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R106	RG 162 OHM+-1%TK200	0603	0009.9500.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R107	RG 392R+-1% TK200	0603	0010.9300.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R108	RG 392R+-1% TK200	0603	0010.9300.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R109	RG 22R +-1% TK200	0603	0009.6901.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R110	RG 22R +-1% TK200	0603	0009.6901.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R111	RG 47K +-1% TK200	0603	0009.7072.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R112	RG 47K +-1% TK200	0603	0009.7072.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R113	RG 47R +-1% TK200	0603	0009.6924.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R114	RG 47,5 OHM+-1%TK100	1206	RG 0007.5566.00	PHILIPS_CO	RC02	
..116	RESISTOR CHIP					
R117	RG 200 OHM+-1%TK100	1206	RG 0007.5608.00	PHILIPS_CO	RC02	
	RESISTOR CHIP					
R118	RG 47R +-1% TK200	0603	0009.6924.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R119	RG 10R +-1% TK200	0603	RG 0009.5328.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R120	RS 0,25W 20K MULTI SE SMD		1100.4626.00	BI_TECHNOL	44JR20K	
	POTENTIOMETER					
R121	RS 0,25W 2K MULTI SE SMD		1097.6611.00	BI_TECHNOL	44JR2K	
	POTENTIOMETER					
R122	RG 1MO +-1% TK200	0603	RG 0009.5370.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R123	RG 1KO +-1% TK200	0603	RG 0009.5340.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R124	RG 1MO +-1% TK200	0603	RG 0009.5370.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R125	RG 511 KOHM+-1%TK100	1206	RG 0007.6085.00	PHILIPS_CO	RC02	
	RESISTOR CHIP					
R126	RG 680K +-1% TK200	0603	0009.7137.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R127	RG 150R +-1% TK200	0603	0009.6947.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R128	RG 150R +-1% TK200	0603	0009.6947.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R129	RG 560R +-1% TK200	0603	0009.9630.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R130	RG 560R +-1% TK200	0603	0009.9630.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R131	RG 15K +-1% TK200	0603	0009.7043.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R132	RG 2K43 +-1% TK200	0603	1081.1780.00	DRALORIC	CR 0603	
..136	SMD-RESISTOR EIA0603					
R137	RG 432 OHM+-1%TK100	1206	RG 0007.5689.00	PHILIPS_CO	RC02	
	RESISTOR CHIP					
R138	RG 432 OHM+-1%TK200	0603	0009.9098.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R139	RG 22K +-1% TK200	0603	0009.7050.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					
R140	RG 22K +-1% TK200	0603	0009.7050.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603					

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Kennz Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R141	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R142	RG 100R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5334.00	DRALORIC	CR 0603	
R143 ..150	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R151	RG 680R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6982.00	DRALORIC	CR 0603	
R152	RG 2KO +-1% TK200 SMD RESISTOR	0603	1097.6328.00	DRALORIC	CR 0603	
R153	RG 51,1 OHM+-1%TK100 CHIP RESISTOR	1206	RG 0006.8810.00	PHILIPS_CO	RC02	
R154	RG 51,0 OHM+-1%TK200 SMD-RESISTOR EIA0603	0603	0009.9030.00	DRALORIC	CR 0603	
R155	RG 51,0 OHM+-1%TK200 SMD-RESISTOR EIA0603	0603	0009.9030.00	DRALORIC	CR 0603	
R156	RG 3K92 +-1% TK200 SMD-RESISTOR EIA0603	0603	0010.8427.00	DRALORIC	CR 0603	
R157	RG 100K +-1% TK200 SMD RESISTOR	0603	RG 0009.5363.00	DRALORIC	CR 0603	
R158	RG 39R2 +-1% TK200 SMD-RESISTOR EIA0603	0603	0010.9400.00	DRALORIC	CR 0603	
R159 ..162	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R163	RG 16,2K +-1% TK200 RESISTOR	0603	1093.6130.00	DRALORIC	CR 0603	
R164 ..167	RG 20K +-1% TK200 SMD-RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R168	RG 1K37 +-1% TK200 SMD RESISTOR	0603	1097.6111.00	DRALORIC	CR 0603	
R169	RG 680R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6982.00	DRALORIC	CR 0603	
R170	RG 10,0KOH+-0,1%TK25 SMD-RESISTOR	1206	0009.7666.00	PHILIPS_CO	MPC 01	
R171	RG 10,0KOH+-0,1%TK25 SMD-RESISTOR	1206	0009.7666.00	PHILIPS_CO	MPC 01	
R172 ..174	RG 56R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.9646.00	DRALORIC	CR 0603	
R175	RG 33K +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7066.00	DRALORIC	CR 0603	
R176	RG 121 OHM+-1%TK200 SMD-RESISTOR EIA0603	0603	0009.9498.00	DRALORIC	CR 0603	
R177	RG 12K1 +-1% TK200 SMD-RESISTOR EIA0603	0603	0010.8462.00	DRALORIC	CR 0603	
R178	RG 12K1 +-1% TK200 SMD-RESISTOR EIA0603	0603	0010.8462.00	DRALORIC	CR 0603	
R179	RG 392K+-1% TK200 RESISTOR	0603	1097.6528.00	DRALORIC	CR 0603	
R180	RG 220K +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7108.00	DRALORIC	CR 0603	
R181	RG 27,4 OHM+-1%TK200 SMD-RESISTOR EIA0603	0603	0009.9046.00	DRALORIC	CR 0603	
R182 ..187	RG 33R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6918.00	DRALORIC	CR 0603	
R188	RG 68K +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7089.00	DRALORIC	CR 0603	
R189	RG O-OHM WIDERSTAND O-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R190	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R191	RG 6K8 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7037.00	DRALORIC	CR 0603	
R192	RG 2K74 +-1% TK200 SMD-RESISTOR EIA0603	0603	0010.8410.00	DRALORIC	CR 0603	
R193	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R194	RG O-OHM WIDERSTAND O-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R195	RG O-OHM WIDERSTAND O-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R196	RG O-OHM WIDERSTAND O-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R197	RG 5K62 +-1% TK200 SMD-RESISTOR EIA0603	0603	0010.8433.00	DRALORIC	CR 0603	
R198 .202	RG O-OHM WIDERSTAND O-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R203	RG O-OHM WIDERSTAND O-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R204	RG 270R +-1% TK200 0603 SMD-RESISTOR EIA0603 270R	0010.9581.00	DRALORIC	CR 0603	
R205	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R206	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R207	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R208	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R209	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R210	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R211	RG 10R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5328.00	DRALORIC	CR 0603	
R212	RG 330R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6960.00	DRALORIC	CR 0603	
R213	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R214	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R215 ..219	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R220	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R221	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R222 ..224	RG 470R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R225 ..230	RG 200R +-1% TK200 0603 SMD RESISTOR	1097.6386.00	DRALORIC	CR 0603	
R231	RG 1K5 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6999.00	DRALORIC	CR 0603	
R232	RG 1K5 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6999.00	DRALORIC	CR 0603	
R233	RG 1K21 +-1% TK200 0603 SMD-REGISTER	0010.9817.00	DRALORIC	CR 0603	
R234	RG 47K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7072.00	DRALORIC	CR 0603	
R235	RG 47K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7072.00	DRALORIC	CR 0603	
R236	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R237	RG 10R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5328.00	DRALORIC	CR 0603	
R238	RG 1MO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5370.00	DRALORIC	CR 0603	
R239	RG 150R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6947.00	DRALORIC	CR 0603	
R240	RG 150R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6947.00	DRALORIC	CR 0603	
R241	RG 560R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.9630.00	DRALORIC	CR 0603	
R242	RG 560R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.9630.00	DRALORIC	CR 0603	
R243	RG 2K43 +-1% TK200 0603 SMD-RESISTOR EIA0603	1081.1780.00	DRALORIC	CR 0603	
R244	RG 432 OHM+-1%TK200 0603 SMD-RESISTOR EIA0603	0009.9098.00	DRALORIC	CR 0603	
R245 ..249	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R250	RG 680R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6982.00	DRALORIC	CR 0603	
R251	RG 51,0 OHM+-1%TK200 0603 SMD-RESISTOR EIA0603	0009.9030.00	DRALORIC	CR 0603	
R252	RG 51,0 OHM+-1%TK200 0603 SMD-RESISTOR EIA0603	0009.9030.00	DRALORIC	CR 0603	
R253	RG 3K92 +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8427.00	DRALORIC	CR 0603	
R254	RG 39R2 +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.9400.00	DRALORIC	CR 0603	
R255	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R256	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R257 ..260	RG 20K +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.9100.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R261	RG 680R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6982.00	DRALORIC	CR 0603	
R262 ..264	RG 56R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.9646.00	DRALORIC	CR 0603	
R265	RG 12K1 +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8462.00	DRALORIC	CR 0603	
R266	RG 220K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7108.00	DRALORIC	CR 0603	
R267	RG 27,4 OHM+-1%TK200 0603 SMD-RESISTOR EIA0603	0009.9046.00	DRALORIC	CR 0603	
R268	RG 1K21 +-1% TK200 0603 SMD-REGISTER	0010.9817.00	DRALORIC	CR 0603	
R269	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R270	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R271	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R272	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R273	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R274	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R275	RG 1K21 +-1% TK200 0603 SMD-REGISTER	0010.9817.00	DRALORIC	CR 0603	
R276	RG 1MO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5370.00	DRALORIC	CR 0603	
R277	RG 511R +-1%TK200 0603 SMD RESISTOR	1097.6470.00	DRALORIC	CR 0603	
R278	RG 511R +-1%TK200 0603 SMD RESISTOR	1097.6470.00	DRALORIC	CR 0603	
R279	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R280	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R281	RG 51,O OHM+-1%TK200 0603 SMD-RESISTOR EIA0603	0009.9030.00	DRALORIC	CR 0603	
R282	RG 680R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6982.00	DRALORIC	CR 0603	
R283 ..286	RG 56R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.9646.00	DRALORIC	CR 0603	
R287	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R288	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R289	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R290 ..292	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R293	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R294	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R295	RG 56R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.9646.00	DRALORIC	CR 0603	
R296 ..302	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R303	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R304	RG 200R +-1% TK200 0603 SMD RESISTOR	1097.6386.00	DRALORIC	CR 0603	
R305 ..307	RG 2K43 +-1% TK200 0603 SMD-RESISTOR EIA0603	1081.1780.00	DRALORIC	CR 0603	
R308	RG 200 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5608.00	PHILIPS_CO	RC02	
R309	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R310	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R311	RG 10R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5328.00	DRALORIC	CR 0603	
R312	RG 10R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5328.00	DRALORIC	CR 0603	
R313	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R314 ..317	RG 10R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5328.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R318	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R319	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R320	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R321	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R322	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R323	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
T1	LU HF-UEBERTR.200MHZ SMD RF-TRANSFORMER	1051.5187.00	MINI-CIRCU	T1-1T-KK TR	
T2	LU HF-UEBERTR.200MHZ SMD RF-TRANSFORMER	1051.5187.00	MINI-CIRCU	T1-1T-KK TR	
U1	BJ LM45C TEMP. SENSOR PRECISION TEMP. SENSOR	1081.1796.00	NSC	LM45CIM3	
V1 ..4	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	
V5	AE BZX284-B2V7 0,4W ZDI ZENER DIODE	0048.3345.00	PHILIPS_SE	BZX284-B2V7	
V6	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
V7 ..9	AE BZX284-B5V6 0,4W ZDI ZENER DIODE	0048.4129.00	PHILIPS_SE	BZX284-B5V6	
V10	AK BFS17 N 15V 25MA 1 GHZ WIDEBAND TRANSISTOR	AK 0010.6460.00	VALVO	BFS17	
V11	AK BFS17 N 15V 25MA 1 GHZ WIDEBAND TRANSISTOR	AK 0010.6460.00	VALVO	BFS17	
V12 ..15	AK BFR193 N 12V 80MA TRANSISTOR	6024.2718.00	SIEMENS	BFR193 (-F1218)	
V16	AG SS24 SGL 40V 2A0 SCHOTTKY RECTIFIER	1081.1880.00	GEN_INSTRU	SS24	
V17	AG SS24 SGL 40V 2A0 SCHOTTKY RECTIFIER	1081.1880.00	GEN_INSTRU	SS24	
V18	AG SS24 SGL 40V 2A0 SCHOTTKY RECTIFIER	1081.1880.00	GEN_INSTRU	SS24	
V19	AG SS24 SGL 40V 2A0 SCHOTTKY RECTIFIER	1081.1880.00	GEN_INSTRU	SS24	
V20	AG SS24 SGL 40V 2A0 SCHOTTKY RECTIFIER	1081.1880.00	GEN_INSTRU	SS24	
V21	AG SS24 SGL 40V 2A0 SCHOTTKY RECTIFIER	1081.1880.00	GEN_INSTRU	SS24	
V22	AK BFR93A NPN 12V 35MA 6 GHZ WIDEBAND TRANSISTOR	AK 0007.7030.00	VALVO	BFR93A	
V23 ..25	AE HSMS2800 SCHOTTKY SCHOTTKY DIODE	AE 0836.8421.00	HEWLETT_PA	HSMS-2800(#L31)	
V26 ..29	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
V30	AD BAS216 75V UDI HIGHSPEED SWITCHING DIODE	0010.9346.00	PHILIPS_SE	BAS216	
V31	AM BF998 N-D DG MOSF DUAL GATE MOSFET	1051.4522.00	SIEMENS	BF998(-F1129)	
V32	AM BF998 N-D DG MOSF DUAL GATE MOSFET	1051.4522.00	SIEMENS	BF998(-F1129)	
V33 ..36	AK BCP68-16 N 20V TRANS MEDIUM POWER TRANSISTOR	0008.2019.00	PHILIPS	BCP68-25	
V37	AE BZX284-B5V1 0,4W ZDI ZENER DIODE	0048.3516.00	PHILIPS_SE	BZX284-B5V1	
V38	AE BAR64-05 CC 2X PIN SILICON PIN DIODE	4047.0254.00	SIEMENS	BAR 64-05 (-A1042)	
V39	AE BAR64-05 CC 2X PIN SILICON PIN DIODE	4047.0254.00	SIEMENS	BAR 64-05 (-A1042)	
V40 ..43	AE BB639 2.9/36.0P CDI TUNING DIODE	4032.4265.00	SIEMENS	BB639(-B586)	
V44	AE BZX284-B6V8 0,4W ZDI ZENER DIODE	0048.3545.00	PHILIPS_SE	BZX284-B6V8	
V45	AK BF799 N 30V 35MA TRANSISTOR	0822.0375.00	SIEMENS	BF799 (Q62702-F935)	
V46	AK BFT92 P 15V 25MA 5 GHZ WIDEBAND TRANSISTOR	1075.4068.00	SIEMENS	BFT92 (-F1062)	
V47	AE BB640 62/03PF CDI TUNNING DIODE	0048.3574.00	SIEMENS	BB640 (Q62702-B589)	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
V48 ..50	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	
V51 ..53	AE BZX284-B5V6 0,4W ZDI ZENER DIODE	0048.4129.00	PHILIPS_SE	BZX284-B5V6	
V54	AK BFR93A NPN 12V 35MA 6 GHZ WIDEBAND TRANSISTOR	AK 0007.7030.00	VALVO	BFR93A	
V55	AE HSMS2800 SCHOTTKY SCHOTTKY DIODE	AE 0836.8421.00	HEWLETT_PA	HSMS-2800(#L31)	
V56	AE HSMS2800 SCHOTTKY SCHOTTKY DIODE	AE 0836.8421.00	HEWLETT_PA	HSMS-2800(#L31)	
V57	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
V58 ..60	AK BCP68-16 N 20V TRANS MEDIUM POWER TRANSISTOR	0008.2019.00	PHILIPS	BCP68-25	
V61 ..64	AE BB639 2.9/36.0P CDI TUNING DIODE	4032.4265.00	SIEMENS	BB639(-B586)	
V65	AK BFT92 P 15V 25MA 5 GHZ WIDEBAND TRANSISTOR	1075.4068.00	SIEMENS	BFT92 (-F1062)	
V66	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	
V67	AK BFR93A NPN 12V 35MA 6 GHZ WIDEBAND TRANSISTOR	AK 0007.7030.00	VALVO	BFR93A	
V68	AK BFR93A NPN 12V 35MA 6 GHZ WIDEBAND TRANSISTOR	AK 0007.7030.00	VALVO	BFR93A	
V69	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V70	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
V71	AE BZX284-B3V3 0,4W ZDI ZENER DIODE	0048.3474.00	PHILIPS_SE	BZX284-B3V3	
V72	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
V73	AK BCP68-16 N 20V TRANS MEDIUM POWER TRANSISTOR	0008.2019.00	PHILIPS	BCP68-25	
V74 ..77	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
X27	FP STIFTLEISTE3P. SMD CONNECTOR	FP 2074.8072.00	SPEED_TECH	H761-8201-038 UNGEGU	
X30	FP STIFTLEISTE 4P. SMD CONNECTOR	FP 1100.4390.00	SPEED_TECH	H761-8201 048	
X34	FP STIFTLEISTE3P. SMD CONNECTOR	FP 2074.8072.00	SPEED_TECH	H761-8201-038 UNGEGU	
X40	FP STIFTLEISTE 4P. SMD CONNECTOR	FP 1100.4390.00	SPEED_TECH	H761-8201 048	
X42	FP STIFTLEISTE3P. SMD CONNECTOR	FP 2074.8072.00	SPEED_TECH	H761-8201-038 UNGEGU	
X101	FP BUCHSENLEISTE 48P.WINK CONNECTOR	1093.6000.00	AMP	536511-2	
X102 ..110	FJ EINLOETBUCHSE MMCX CONNECTOR	1085.1532.00	SUHNER	82MMCXS50-0-2/111KG	
Z1 ..5	LD T-FILTER 3,3NF SMD SMD-FILTER	1039.1362.00	MURATA	NFM61R20T332T1	
Z6	LD T-FILTER 100PF SMD SMD-FILTER	1039.1356.00	MURATA	NFM61R00T101T1	
Z7	LD T-FILTER 100PF SMD SMD-FILTER	1039.1356.00	MURATA	NFM61R00T101T1	
Z8 ..12	LD T-FILTER 3,3NF SMD SMD-FILTER	1039.1362.00	MURATA	NFM61R20T332T1	
Z13 ..19	LD T-FILTER 100PF SMD SMD-FILTER	1039.1356.00	MURATA	NFM61R00T101T1	
Z20	LD T-FILTER 3,3NF SMD SMD-FILTER	1039.1362.00	MURATA	NFM61R20T332T1	
Z21 ..32	LD T-FILTER 100PF SMD SMD-FILTER	1039.1356.00	MURATA	NFM61R00T101T1	
Z33	LD T-FILTER 3,3NF SMD SMD-FILTER	1039.1362.00	MURATA	NFM61R20T332T1	
Z34	LD T-FILTER 100PF SMD SMD-FILTER	1039.1356.00	MURATA	NFM61R00T101T1	
Z35	LD T-FILTER 100PF SMD SMD-FILTER	1039.1356.00	MURATA	NFM61R00T101T1	
Z44	LD T-FILTER 100PF SMD SMD-FILTER	1039.1356.00	MURATA	NFM61R00T101T1	
Z45	LD T-FILTER 3,3NF SMD SMD-FILTER	1039.1362.00	MURATA	NFM61R20T332T1	
Z46	LD T-FILTER 3,3NF SMD SMD-FILTER	1039.1362.00	MURATA	NFM61R20T332T1	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
Z47	LD T-FILTER 100PF SMD SMD-FILTER	1039.1356.00	MURATA	NFM61R00T101T1	
Z48	LD T-FILTER 3,3NF SMD SMD-FILTER	1039.1362.00	MURATA	NFM61R20T332T1	
Z49	LD T-FILTER 3,3NF SMD SMD-FILTER	1039.1362.00	MURATA	NFM61R20T332T1	
Z50	LD T-FILTER 100PF SMD SMD-FILTER	1039.1356.00	MURATA	NFM61R00T101T1	
Z51	LD T-FILTER 100PF SMD SMD-FILTER	1039.1356.00	MURATA	NFM61R00T101T1	
Z60	LD T-FILTER 100PF SMD SMD-FILTER	1039.1356.00	MURATA	NFM61R00T101T1	
Z61	LD T-FILTER 3,3NF SMD SMD-FILTER	1039.1362.00	MURATA	NFM61R20T332T1	
Z62	LD T-FILTER 3,3NF SMD SMD-FILTER	1039.1362.00	MURATA	NFM61R20T332T1	
Z63	LD T-FILTER 100PF SMD SMD-FILTER	1039.1356.00	MURATA	NFM61R00T101T1	
Z64	LD T-FILTER 3,3NF SMD SMD-FILTER	1039.1362.00	MURATA	NFM61R20T332T1	

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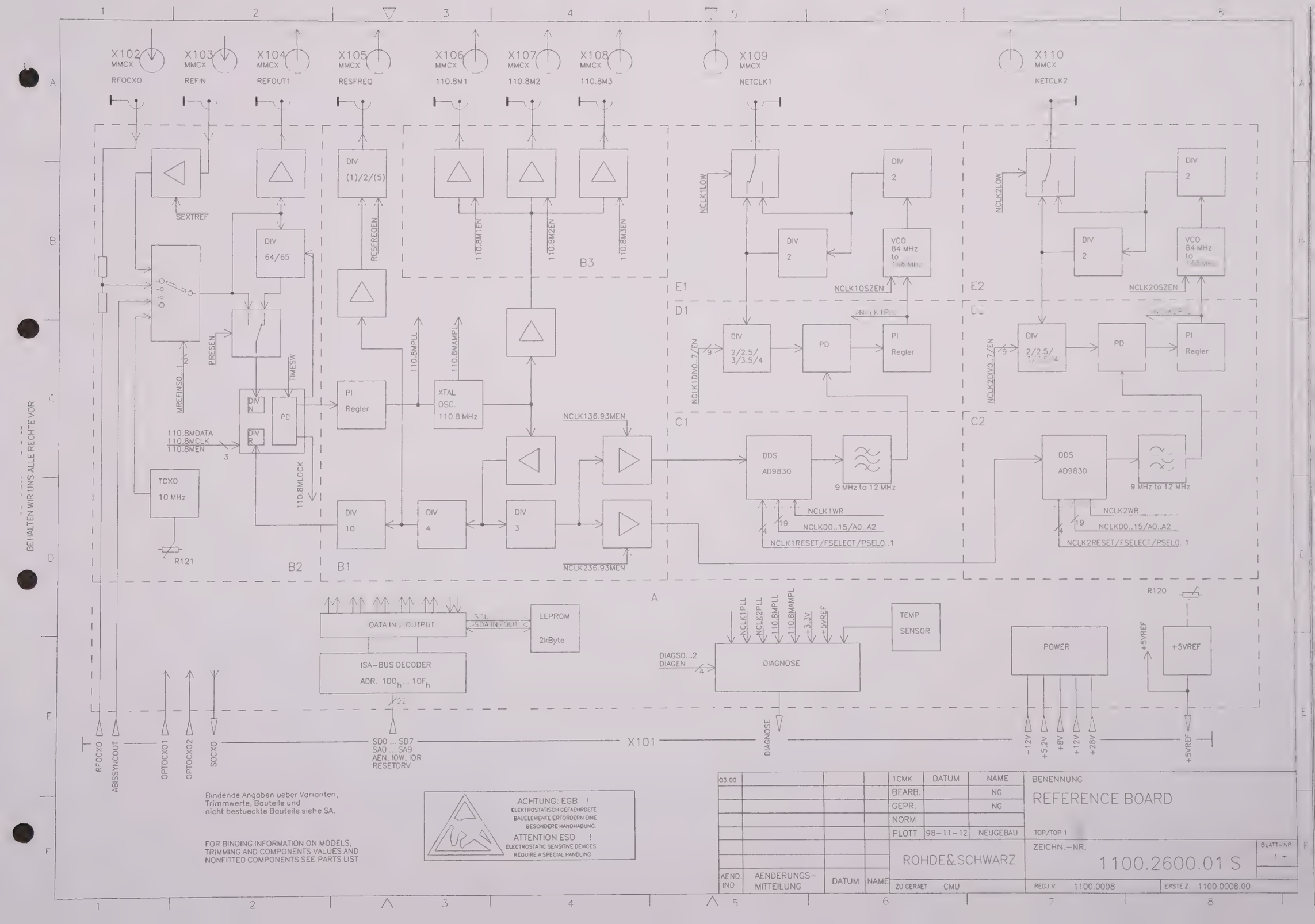


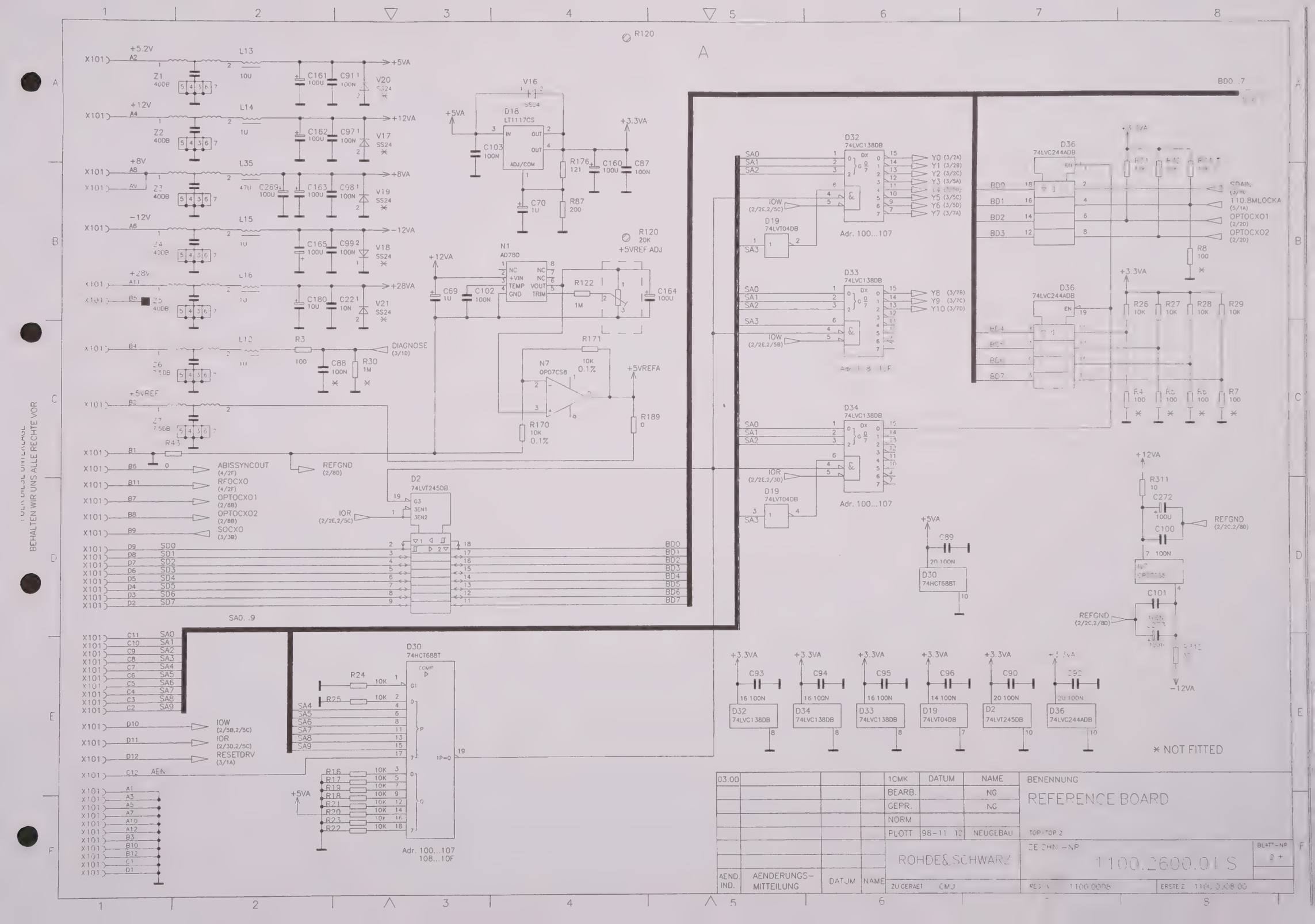
BEHALTEN WIR UNS ALLE RECHTE VOR

Bindende Angaben ueber Varianten, Trimmwerte, Bauteile und nicht bestueckte Bauteile siehe SA.

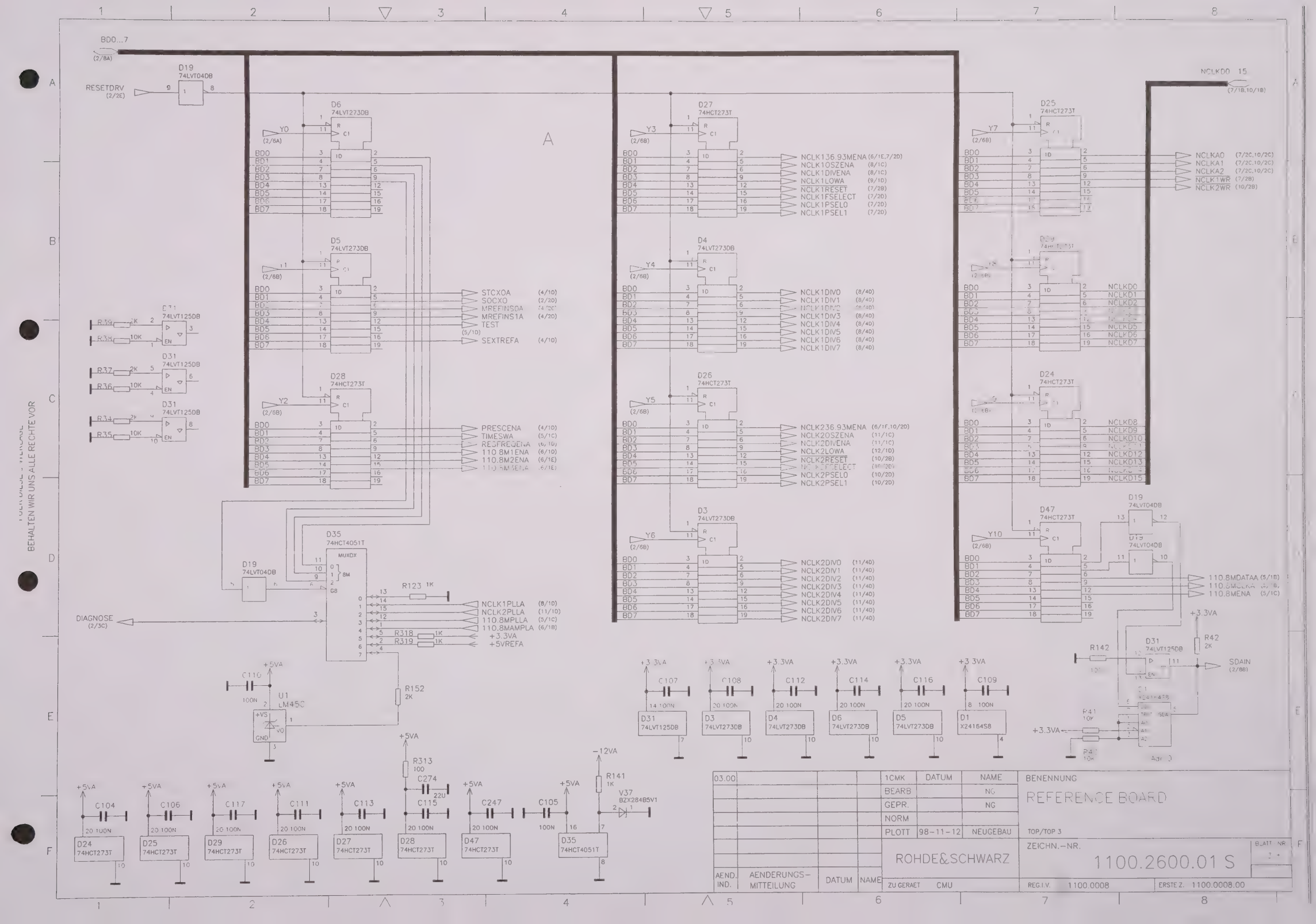
FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST

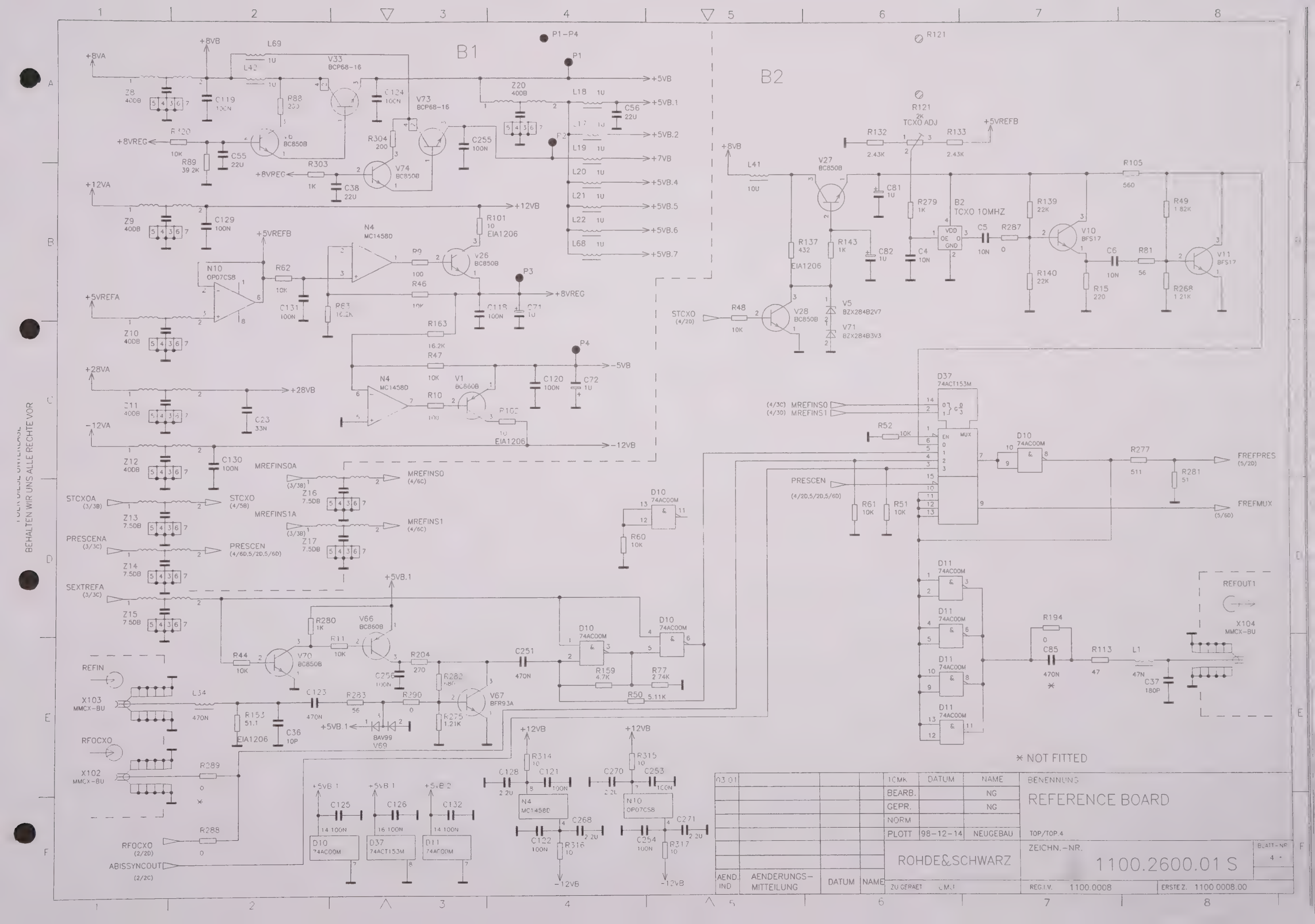
ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

03.00				1CMK	DATUM	NAME	BENENNUNG
				BEARB.		NG	REFERENCE BOARD
				GEPR.		NG	
				NORM			
				PLOTT	98-11-12	NEUGEBAU	TOP/TOP 1
				ROHDE&SCHWARZ			ZEICHN.-NR. 1100.2600.01 S
AEND. IND	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET CMU			REG.I.V. 1100.0008 ERSTE Z. 1100.0008.00

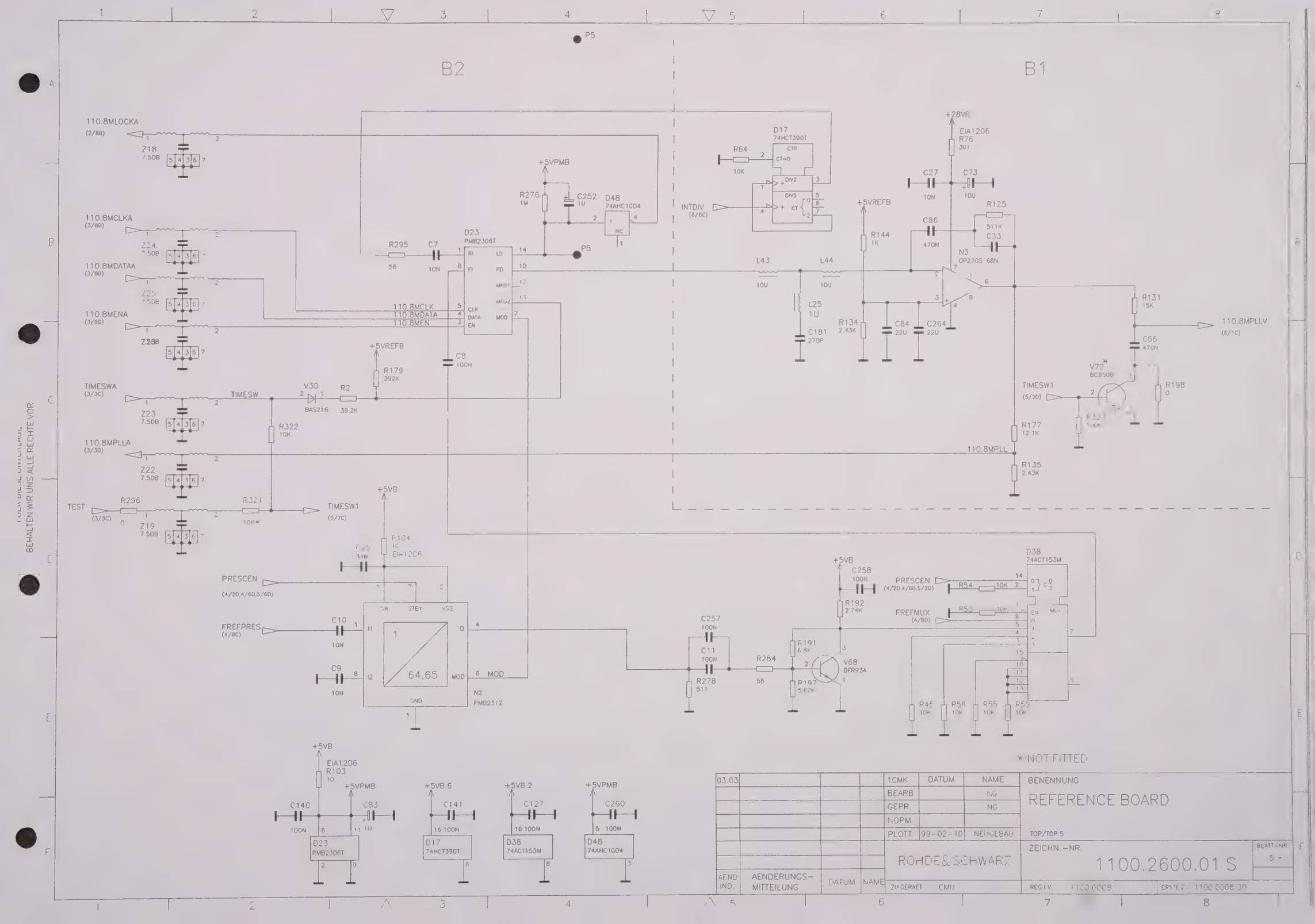


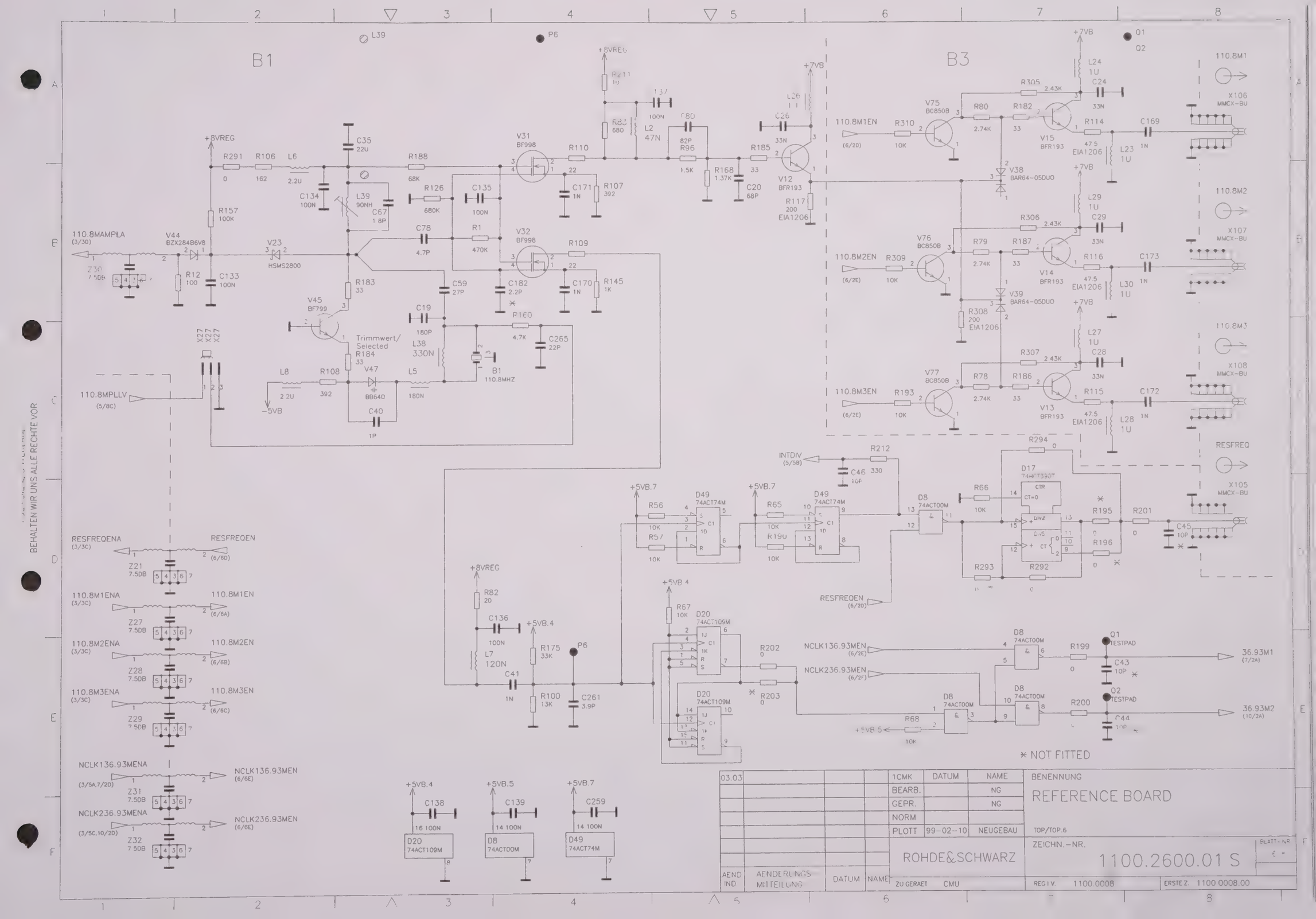
BEHALTEN WIR UNS ALLE RECHTE VOR
+5.2V
+12V
+8V
-12V
+28V
+5VREF
+5VA
+12VA
+8VA
-12VA
+28VA
L13
L14
L35
L15
L16
L12
Z1
Z2
Z3
Z4
Z5
Z6
Z7
C161
C91
C162
C97
C163
C98
C165
C99
C180
C221
C269
V20
V17
V19
V18
V21
SS24
R3
C88
R30
DIAGNOSE
(3/10)
R43
ABISSYNCOUT
(4/2F)
RFOCXO
(4/2F)
OPTOCXO1
(2/8B)
OPTOCXO2
(2/8B)
SOCXO
(3/3B)
REFGND
(2/8D)
IOR
(2/2E,2/5C)
D2
74LVT245DB
SD0
SD1
SD2
SD3
SD4
SD5
SD6
SD7
BD0
BD1
BD2
BD3
BD4
BD5
BD6
BD7
SA0..9
IOW
(2/5B,2/5C)
IOR
(2/3D,2/5C)
RESETDRV
(3/1A)
AEN
D30
74HCT688T
R24
R25
R16
R17
R19
R18
R21
R20
R23
R22
Adr. 100...107
108...10F
V16
D18
LT1117CS
C103
R176
C160
C87
C70
R87
+3.3VA
R120
20K
+5VREF ADJ
N1
AD780
C69
C102
R122
C164
R171
N7
OP07CS8
R170
R189
+5VREFA
D32
74LVC138DB
D33
74LVC138DB
D34
74LVC138DB
D19
74LVT04DB
Adr. 100...107
Y0 (3/2A)
Y1 (3/2B)
Y2 (3/2C)
Y3 (3/5A)
Y5 (3/5C)
Y6 (3/5D)
Y7 (3/7A)
Y8 (3/7B)
Y9 (3/7C)
Y10 (3/7D)
D36
74LVC244ADB
SDAIN
110.8MLOCKA
(5/1A)
OPTOCXO1
(2/2D)
OPTOCXO2
(2/2D)
R8
R26
R27
R28
R29
R4
R5
R6
R7
R311
C272
C100
C101
C89
D30
74HCT688T
C93
C94
C95
C96
C90
C92
D32
74LVC138DB
D34
74LVC138DB
D33
74LVC138DB
D19
74LVT04DB
D2
74LVT245DB
D36
74LVC244ADB
* NOT FITTED
03.00
1CMK
DATUM
NAME
BEARB.
NG
GEPR.
NG
NORM
PLOTT
98-11-12
NEUGEBAU
BENENNUNG
REFERENCE BOARD
TOP-TOP 2
ROHDE&SCHWARZ
ZEICHN.-NR
1100.2600.01 S
BLATT-NR
2 +
AEND. IND.
AENDERUNGS-MITTEILUNG
DATUM
NAME
ZU GERAET
CMJ
REG. V
1100.0008
ERSTE Z
1100.0008.00

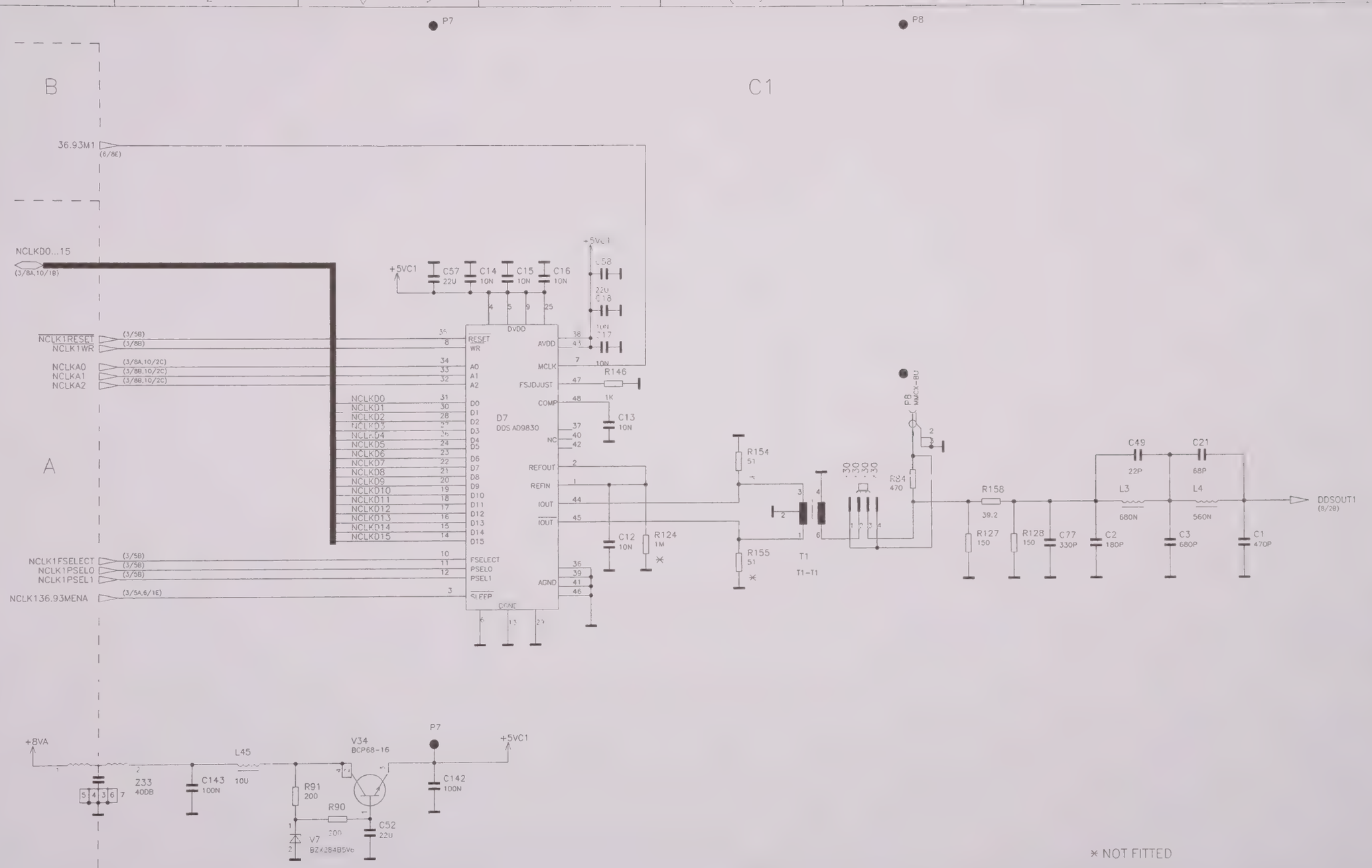

BD0...7
(2/8A)
RESETDRV
(2/2E)
D19
74LVT04DB
D6
74LVT273DB
Y0
(2/6A)
D5
74LVT273DB
(2/6B)
D28
74HCT273T
Y2
(2/6B)
STCXOA (4/10)
SOCXO (2/20)
MREFINS0A
MREFINS1A (4/20)
TEST (5/10)
SEXTREFA (4/10)
PRESCENA (4/10)
TIMESWA (5/1C)
110.8M1ENA (6/10)
110.8M2ENA (6/1E)
D71
74LVT125DB
D31
74LVT125DB
D31
74LVT125DB
D35
74HCT4051T
MUXDX
DIAGNOSE
(2/3C)
R123 1K
NCLK1PLLA (8/10)
NCLK2PLLA (11/10)
110.8MPLLA (5/1C)
110.8MAMPLA (6/1B)
R318 1K
R319 1K
+3.3VA
+5VREFA
+5VA
C110
100N
U1
LM45C
R152
2K
D27
74HCT273T
Y3
(2/6B)
D4
74LVT273DB
Y4
(2/6B)
D26
74HCT273T
Y5
(2/6B)
D3
74LVT273DB
Y6
(2/6B)
NCLK136.93MENA (6/1E,7/2D)
NCLK1OSZENA (8/1C)
NCLK1DIVENA (8/1C)
NCLK1LOWA (9/1D)
NCLK1RESET (7/2B)
NCLK1FSELECT (7/2D)
NCLK1PSEL0 (7/2D)
NCLK1PSEL1 (7/2D)
NCLK1DIV0 (8/4D)
NCLK1DIV1 (8/4D)
NCLK1DIV3 (8/4D)
NCLK1DIV4 (8/4D)
NCLK1DIV5 (8/4D)
NCLK1DIV6 (8/4D)
NCLK1DIV7 (8/4D)
NCLK236.93MENA (6/1F,10/2D)
NCLK2OSZENA (11/1C)
NCLK2DIVENA (11/1C)
NCLK2LOWA (12/1D)
NCLK2RESET (10/2B)
NCLK2FSELECT (10/2D)
NCLK2PSEL0 (10/2D)
NCLK2PSEL1 (10/2D)
NCLK2DIV0 (11/4D)
NCLK2DIV1 (11/4D)
NCLK2DIV2 (11/4D)
NCLK2DIV3 (11/4D)
NCLK2DIV4 (11/4D)
NCLK2DIV5 (11/4D)
NCLK2DIV6 (11/4D)
NCLK2DIV7 (11/4D)
D25
74HCT273T
Y7
(2/6B)
D24
74HCT273T
D47
74HCT273T
Y10
(2/6B)
NCLKD0 15
(7/1B,10/1B)
NCLKA0 (7/2C,10/2C)
NCLKA1 (7/2C,10/2C)
NCLKA2 (7/2C,10/2C)
NCLK1WR (7/2B)
NCLK2WR (10/2B)
NCLKD0
NCLKD1
NCLKD2
NCLKD5
NCLKD6
NCLKD7
NCLKD8
NCLKD9
NCLKD10
NCLKD12
NCLKD13
NCLKD15
110.8MDATAA (5/1B)
110.8MENA (5/1C)
+3.3VA
R42
2K
R142
SDAIN
(2/8B)
R41
10K
C107
C108
C112
C114
C116
C109
14 100N
20 100N
8 100N
D31
74LVT125DB
D3
74LVT273DB
D4
74LVT273DB
D6
74LVT273DB
D5
74LVT273DB
D1
X24164S8
C104
C106
C117
C111
C113
C274
22U
C115
C247
C105
100N
R313
100
R141
1K
V37
BZX284B5V1
D24
74HCT273T
D25
74HCT273T
D29
74HCT273T
D26
74HCT273T
D27
74HCT273T
D28
74HCT273T
D47
74HCT273T
D35
74HCT4051T
+12VA
-12VA
03.00
1CMK
DATUM
NAME
BEARB
NG
GEPR.
NG
NORM
PLOTT
98-11-12
NEUGEBAU
BENENNUNG
REFERENCE BOARD
TOP/TOP 3
ROHDE&SCHWARZ
ZEICHN.-NR.
1100.2600.01 S
BLATT NR
AEND. IND.
AENDERUNGS-MITTEILUNG
DATUM
NAME
ZU GERAET CMU
REG.I.V. 1100.0008
ERSTE Z. 1100.0008.00
BEHALTEN WIR UNS ALLE RECHTE VOR



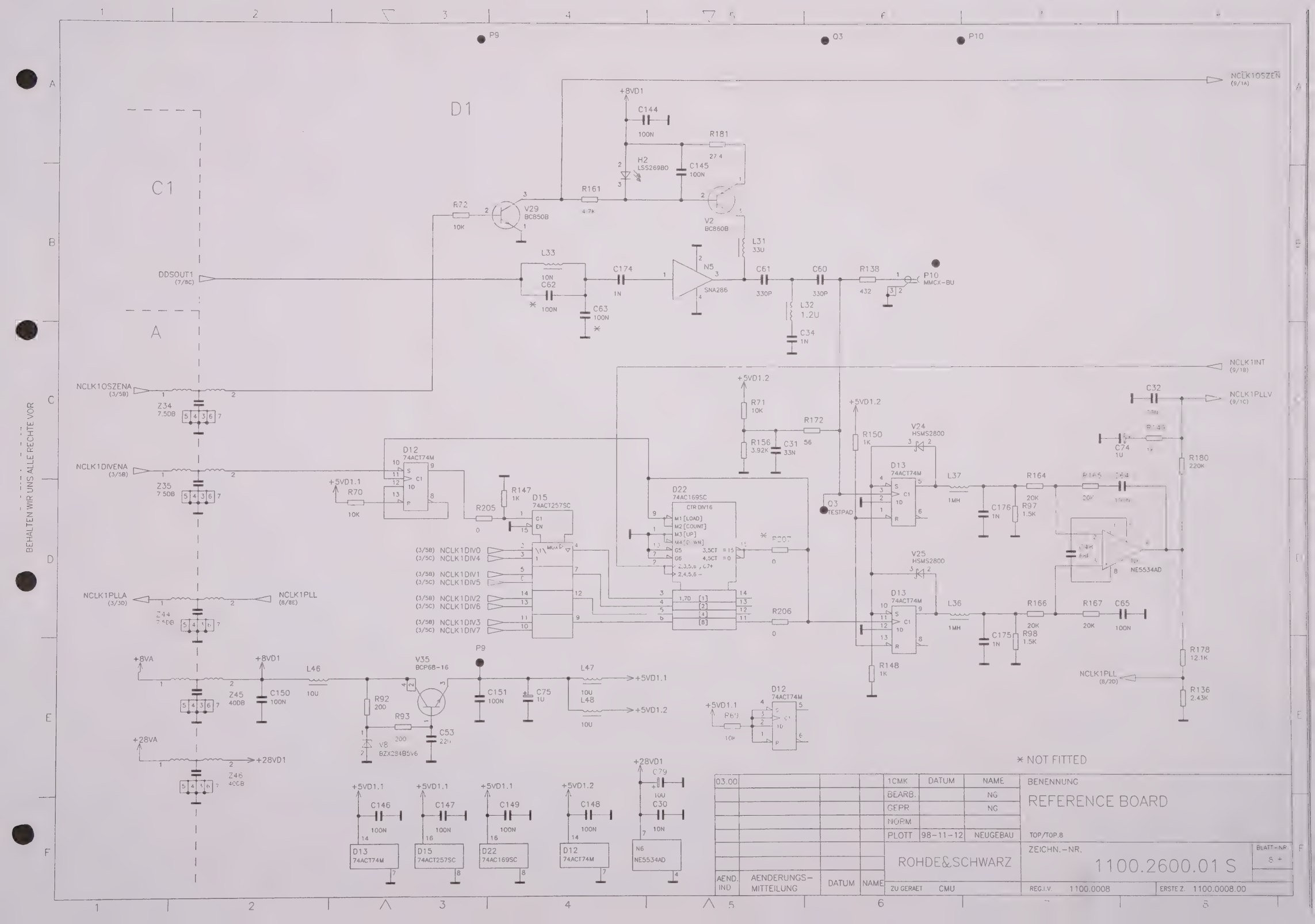
DIESE UNTERLAGEN BEHALTEN WIR UNS ALLE RECHTE VOR

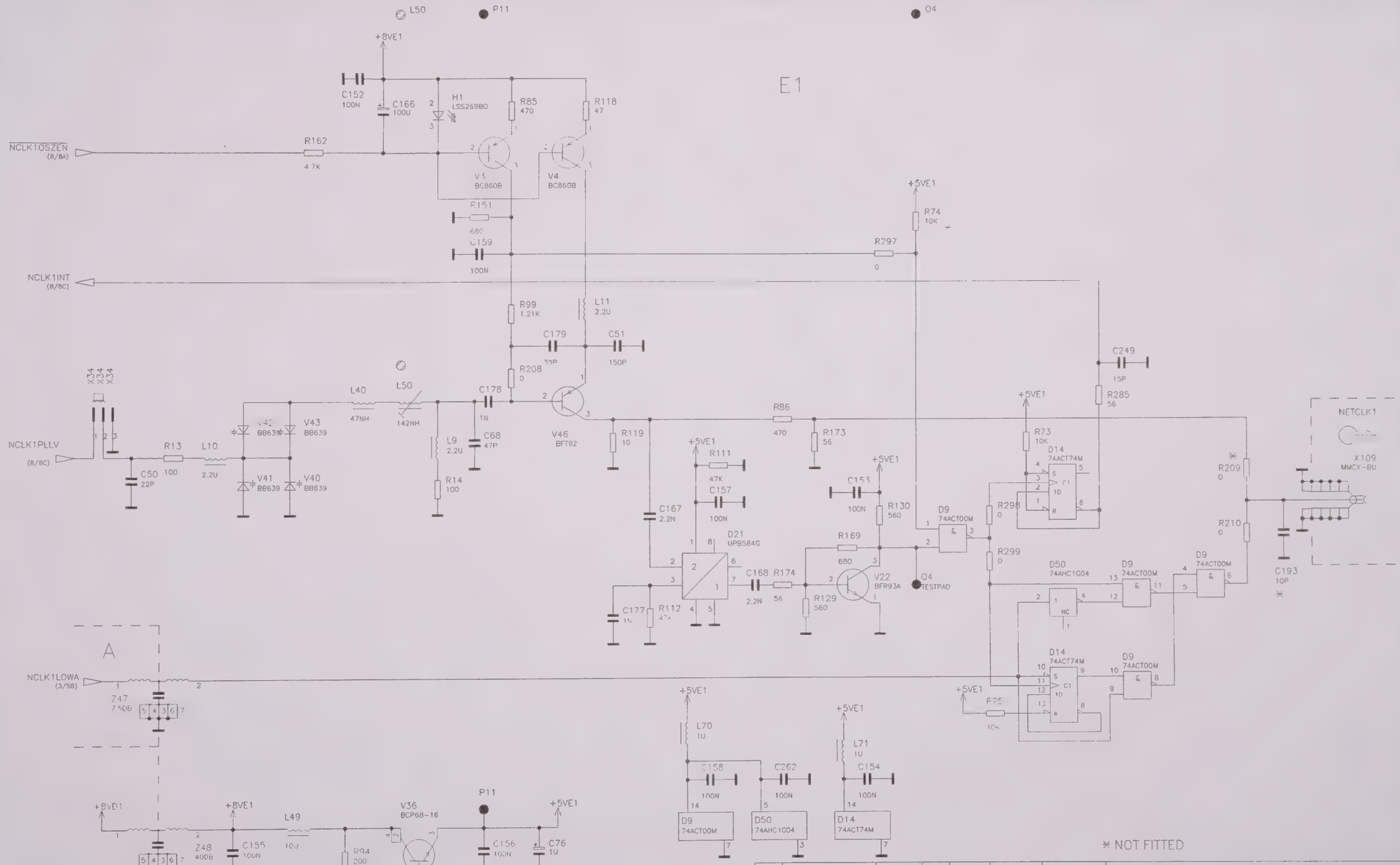

B2
B1
110.8MLOCKA
(2/8B)
Z18
7.5DB
110.8MCLKA
(3/8D)
Z24
7.5DB
110.8MDATAA
(3/8D)
Z25
7.5DB
110.8MENA
(3/8D)
Z26
7.5DB
TIMESWA
(3/3C)
Z23
7.5DB
110.8MPLLA
(3/3D)
Z22
7.5DB
TEST
(3/3C)
Z19
7.5DB
+5VPMB
R276
1M
C252
1U
D48
74AHC1G04
P5
R295
56
C7
10N
D23
PMB2306T
110.8MCLK
110.8MDATA
110.8MEN
C8
100N
+5VREFB
R179
392K
V30
BAS216
R2
39.2K
TIMESW
R322
10K
R296
R321
10K*
TIMESW1
(5/7C)
+5VB
R104
EIA1206
C45
33N
PRESCEN
(4/2D,4/6D,5/6D)
FREFPRES
(4/8C)
C10
10N
C9
10N
64,65
N2
PMB2312
MOD
GND
STBY
VSS
D17
74HCT390T
R64
10K
INTDIV
(6/6C)
+28VB
EIA1206
R76
301
C27
10N
C73
10U
+5VREFB
R144
1K
C86
470N
R125
511K
C33
N3
OP27GS 68N
L43
10U
L44
10U
L25
1U
C181
270P
R134
2.43K
C84
22U
C264
22U
R131
15K
C66
470N
110.8MPLLV
(6/1C)
V72*
BC850B
TIMESW1
(5/20)
R198
0
R177
12.1K
110.8MPLL
R135
2.43K
+5VB
C258
100N
R192
2.74K
C257
100N
C11
100N
R278
511
R284
56
R191
6.8K
R197
5.62K
V68
BFR93A
PRESCEN
(4/20,4/60,5/20)
FREFMUX
(4/8D)
D38
74ACT153M
R54
10K
R53
10K
R45
10K
R58
10K
R55
10K
R59
10K
* NOT FITTED
+5VB
EIA1206
R103
10
+5VPMB
C140
100N
C83
1U
D23
PMB2306T
+5VB.6
C141
16 100N
D17
74HCT390T
+5VB.2
C127
16 100N
D38
74ACT153M
+5VPMB
C260
5 100N
D48
74AHC1G04
03.03
1CMK
DATUM
NAME
BEARB
NG
GEPR.
NG
NOPM
PLOTT
99-02-10
NEUGEBAU
BENENNUNG
REFERENCE BOARD
TOP/TOP 5
ROHDE&SCHWARZ
ZEICHN.-NR.
1100.2600.01 S
BLATT-NR
5
AEND IND.
AENDERUNGS-MITTEILUNG
DATUM
NAME
ZU GERAET CMU
REGIV. 1100.0008
EPSTEZ 1100.0008.00


B1
B3
+8VREG
+7VB
+5VB
-5VB
110.8MAMPLA
110.8MPLLV
110.8M1EN
110.8M2EN
110.8M3EN
RESFREQ
RESFREQEN
RESFREQENA
110.8M1ENA
110.8M2ENA
110.8M3ENA
NCLK136.93MEN
NCLK236.93MEN
NCLK136.93MENA
NCLK236.93MENA
INTDIV
Trimmwert/
Selected
R184
B1
110.8MHZ
HSMS2800
BB640
BF998
BFR193
BC850B
BAR64-05DUO
74ACT00M
74ACT74M
74ACT109M
74HCT390T
TESTPAD
36.93M1
36.93M2
* NOT FITTED
REFERENCE BOARD
ROHDE&SCHWARZ
1100.2600.01 S
1100.0008
1100 0008.00
BEHALTEN WIR UNS ALLE RECHTE VOR

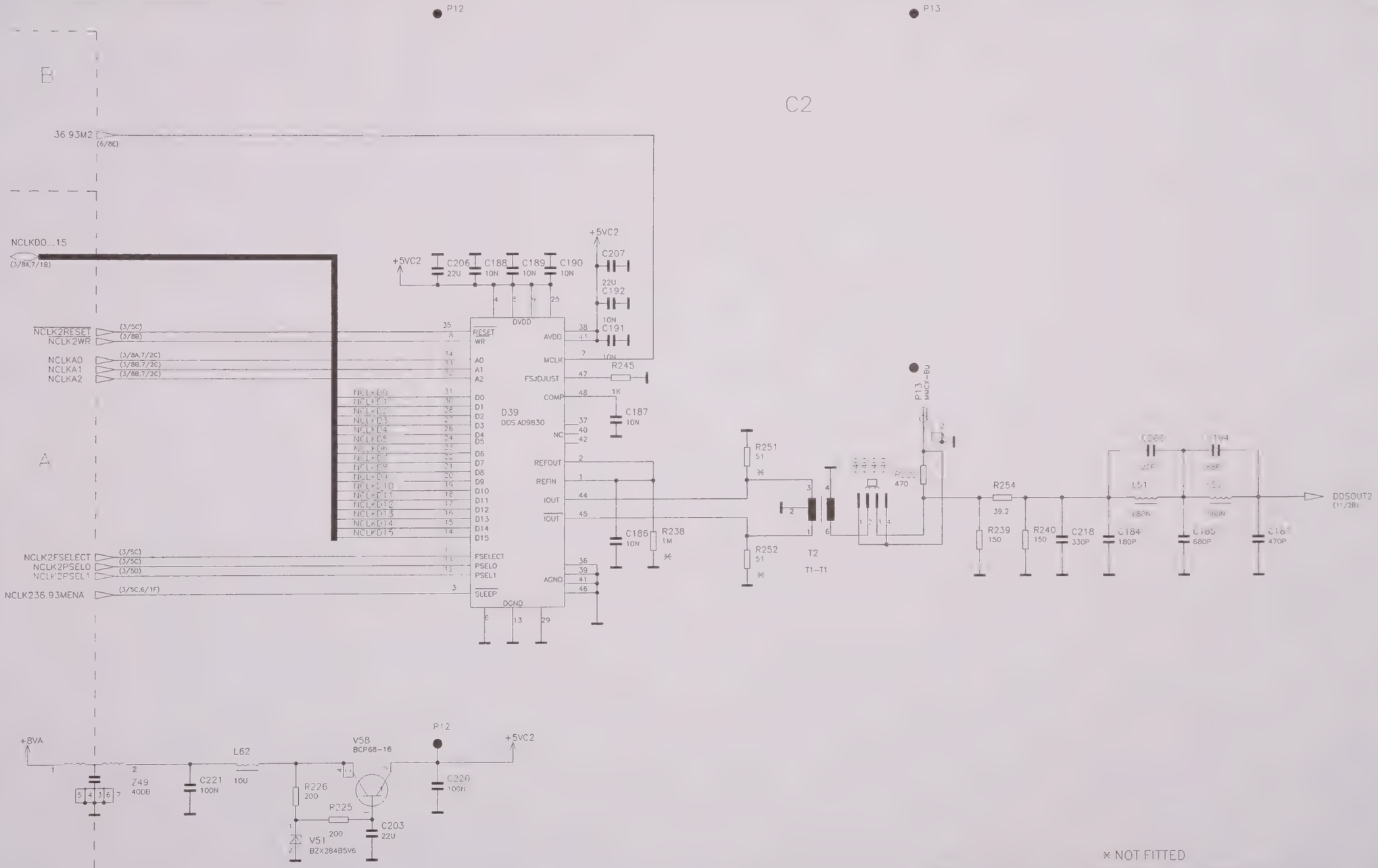


DIESE UNTERLAGE BEHALTEN WIR UNS ALLE RECHTE VOR


D1
C1
A
P9
Q3
P10
NCLK1OSZEN (9/1A)
+8VD1
C144 100N
R181 27.4
H2 LSS269BO
C145 100N
R161 4.7K
R72 10K
V29 BC850B
V2 BC860B
L31 33U
L33 10N
C62 100N
C63 100N
C174 1N
N5 SNA286
C61 330P
C60 330P
R138 432
L32 1.2U
C34 1N
P10 MMCX-BU
DDSOUT1 (7/8C)
NCLK1INT (9/1B)
NCLK1OSZENA (3/5B)
Z34 7.50B
NCLK1DIVENA (3/5B)
Z35 7.50B
NCLK1PLLA (3/3D)
Z44 7.50B
NCLK1PLL (8/8E)
+5VD1.2
R71 10K
R172 56
R156 3.92K
C31 33N
R150 1K
V24 HSMS2800
D13 74ACT74M
L37 1MH
R164 20K
C176 1N
R97 1.5K
C32
C74 1U
R180 220K
NCLK1PLLV (9/1C)
D12 74ACT74M
+5VD1.1
R70 10K
R147 1K
D15 74ACT257SC
R205 0
D22 74AC169SC
CTR DIV16
M1 [LOAD]
M2 [COUNT]
M3 [UP]
M4 [DOWN]
G5 3,5CT =15
G6 4,5CT =0
2,3,5,6,7+
2,4,5,6 –
1,7D [1]
[2]
[4]
[8]
R207 0
Q3 TESTPAD
V25 HSMS2800
L36 1MH
R166 20K
C175 1N
R98 1.5K
R167 20K
C65 100N
NE5534AD
R148 1K
R178 12.1K
NCLK1PLL (8/2D)
R136 2.43K
(3/5B) NCLK1DIV0
(3/5C) NCLK1DIV4
(3/5B) NCLK1DIV1
(3/5C) NCLK1DIV5
(3/5B) NCLK1DIV2
(3/5C) NCLK1DIV6
(3/5B) NCLK1DIV3
(3/5C) NCLK1DIV7
R206 0
+8VA
+8VD1
L46
Z45 40DB
C150 100N
10U
V35 BCP68-16
R92 200
R93 200
C53 22U
V8 BZX284B5V6
C151 100N
C75 1U
L47 10U
L48 10U
+5VD1.1
+5VD1.2
+28VA
+28VD1
Z46 40DB
C146 100N
C147 100N
C149 100N
C148 100N
C79 10U
C30 10N
N6 NE5534AD
* NOT FITTED
BEHALTEN WIR UNS ALLE RECHTE VOR
03.00
AEND. IND
AENDERUNGS-MITTEILUNG
DATUM
NAME
1CMK
BEARB.
GEPR
NORM
PLOTT 98-11-12 NEUGEBAU
DATUM
NAME
NG
NG
BENENNUNG
REFERENCE BOARD
TOP/TOP.8
ROHDE&SCHWARZ
ZEICHN.-NR.
1100.2600.01 S
BLATT-NR
ZU GERAET CMU
REG.I.V. 1100.0008
ERSTE Z. 1100.0008.00



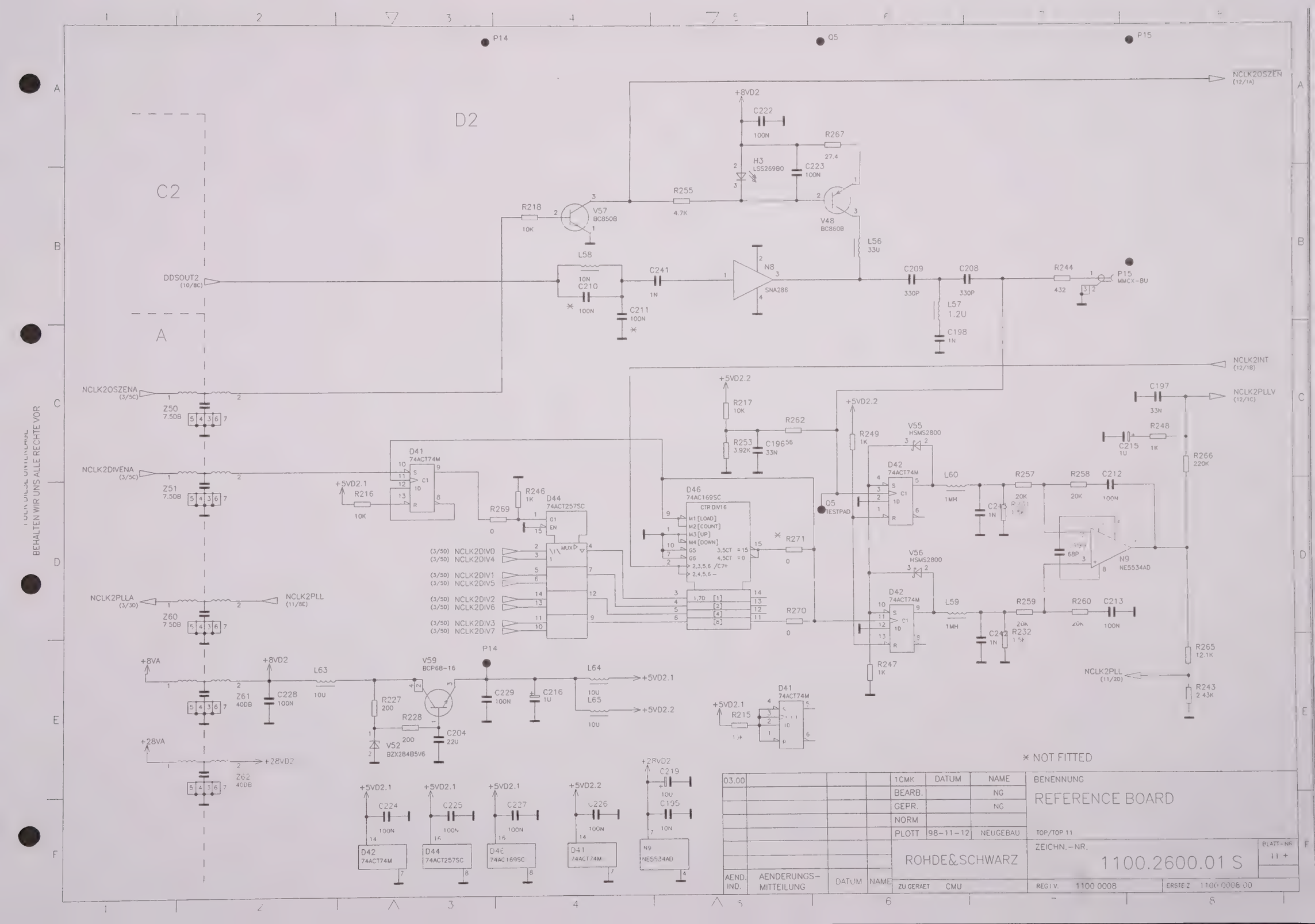
BEHALTEN WIR UNS ALLE RECHTE VOR



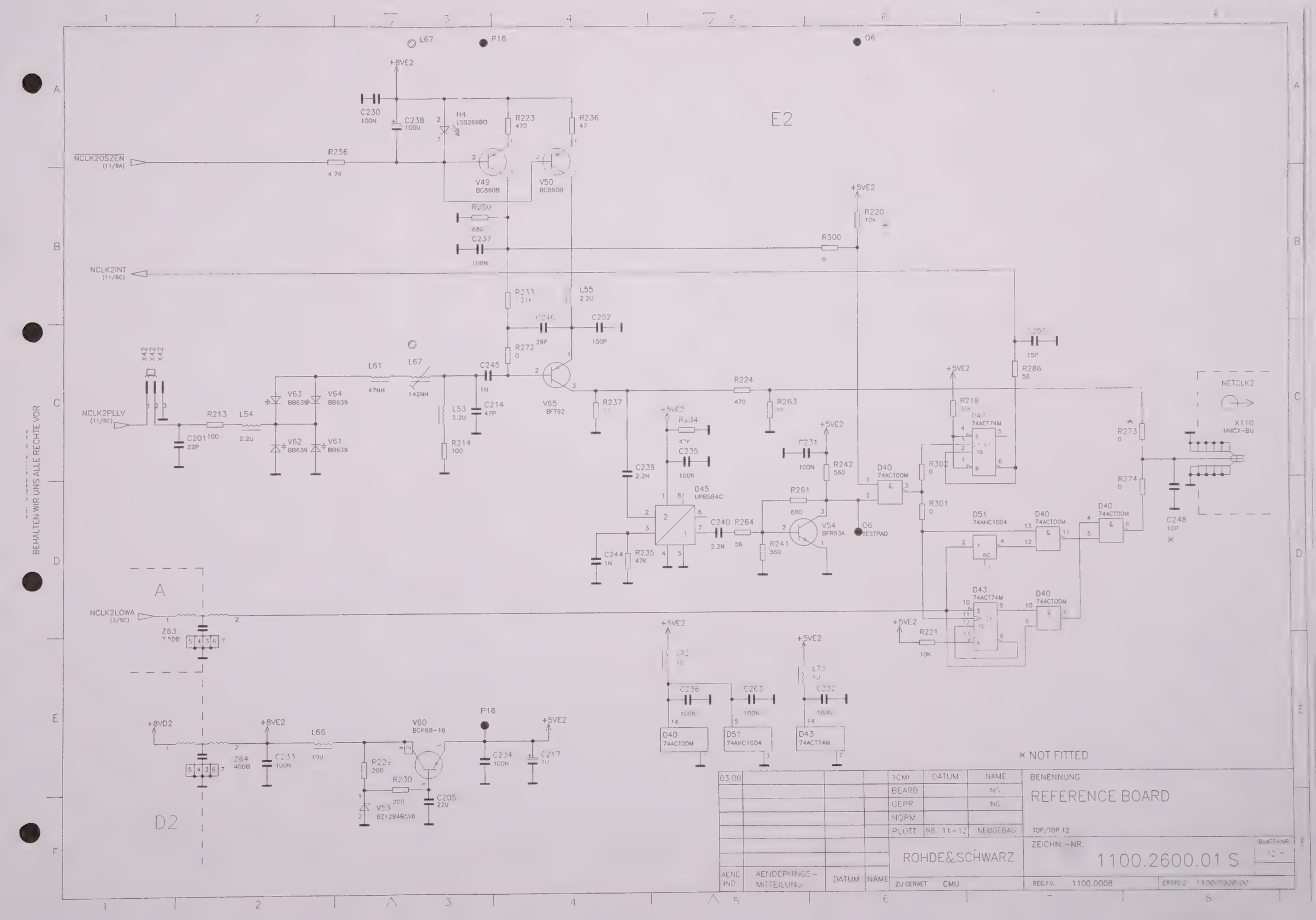
* NOT FITTED

03.00				10MK	DATUM	NAME	BENENNUNG	
				BEARB		NG	REFERENCE BOARD	
				GEPR		NG		
				NORM				
				PLOTT	98-11-12	NEUGEBAU	TOP/TOP 10	
				ROHDE&SCHWARZ			ZEICHN.-NR. 1100.2600.01 S	BLATT NR 10
AEND IND	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET			ERSTE	

BEHALTEN WIR UNS ALLE RECHTE VOR



DIESE UNTERLAGE BEHALTEN WIR UNS ALLE RECHTE VOR



03.00					ICM	DATUM	NAME	BENENNUNG
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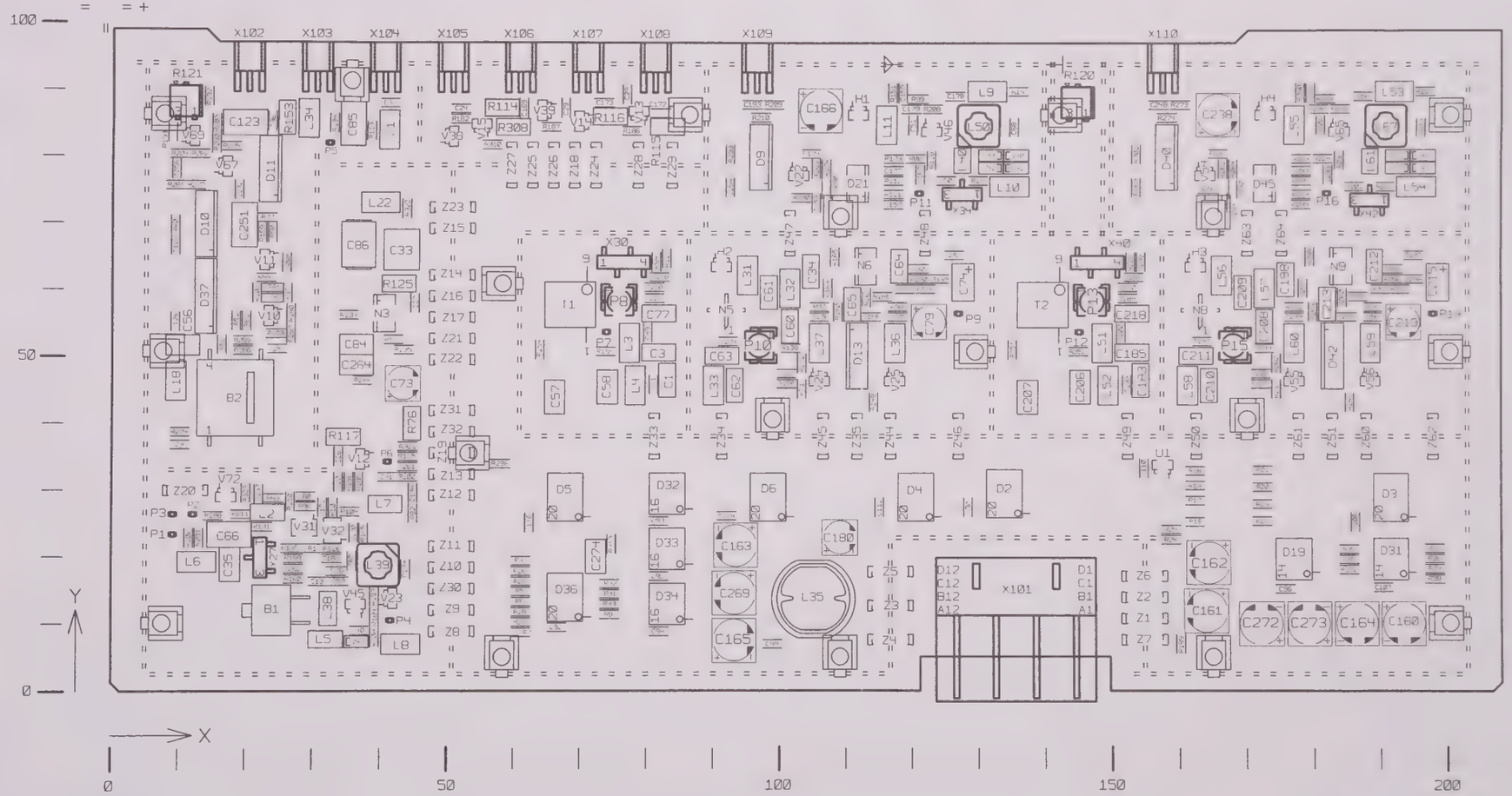
					GEPR		NG	
					NORM			
					PLOTT	98 11-12	NEUGEBAU	TOP/TOP 12
					ROHDE&SCHWARZ			ZEICHN.-NR. 1100.2600.01 S
AEND IND	AENDERUNGS-MITTEILUNG	DATUM	NAME		ZU GERAET CMU			REG.I.V. 1100.0008 ERSTE Z 1100.0008.00



DARSTELLUNG SEITE B
VIEW ON SIDE B

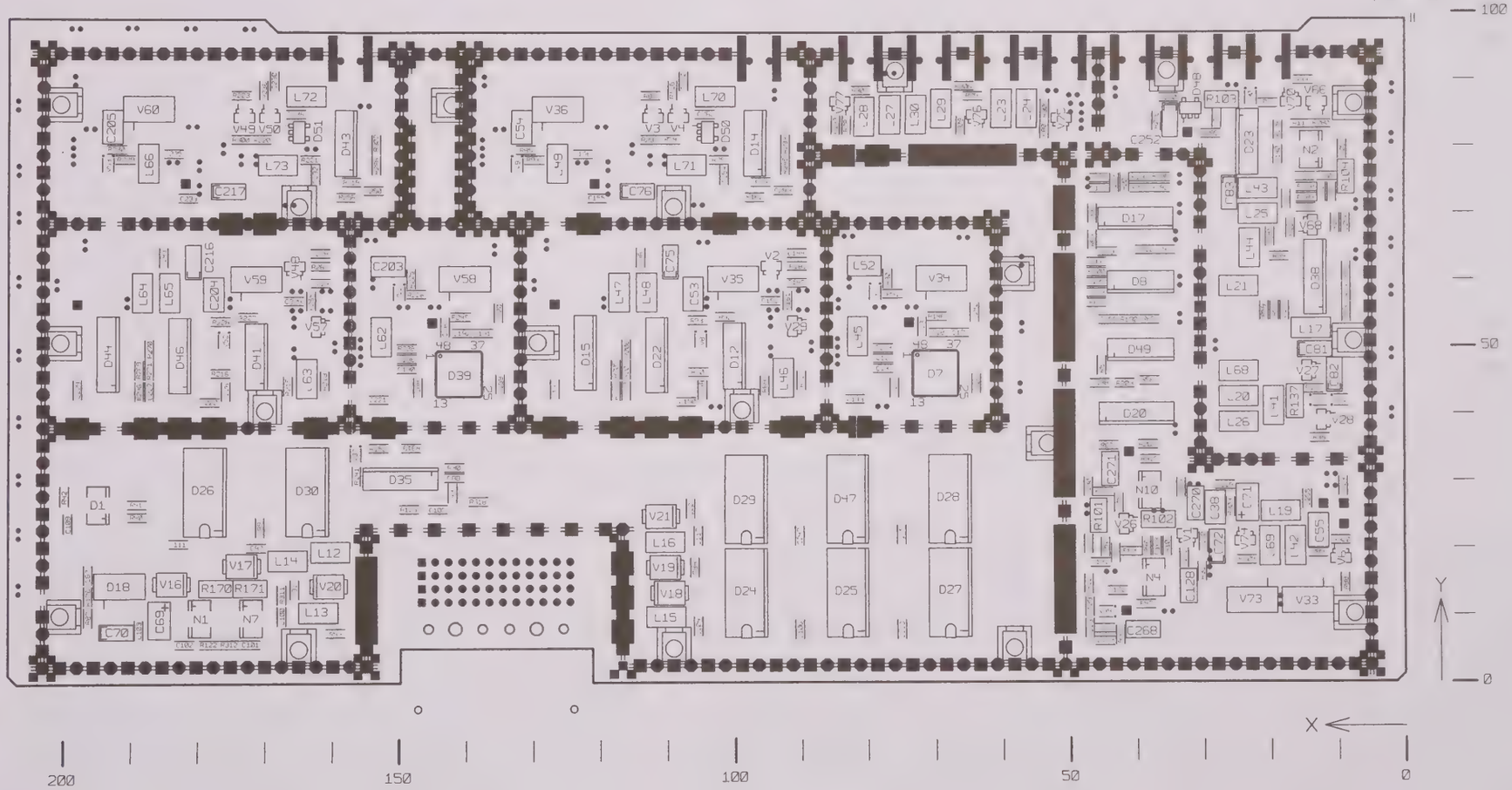
ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN UEBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

03.00				1CMK	DATUM	NAME	BENENNUNG
				BEARB.		NG	REFERENCE BOARD
				GEPR.		NG	
				NORM			
				PLOTT	98-11-11	NEUGEBAU	
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ROHDE&SCHWARZ			ZEICHN.-NR. 1100.2600.01 D
				ZU GERAET CMU			REG.I.V. 1100.0008

FUER DIESE UNTERLAGE BEHALTEN WIR UNS ALLE RECHTE VOR



DARSTELLUNG SEITE A
VIEW ON SIDE A

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING.

BINDENDE ANGABEN JEDER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

03.00			
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME

1CWK	DATUM	NAME
BEARB.		NG
GEPR.		NG
NORM		
PLOTT	98-11-11	NEUGEBAU

ROHDE&SCHWARZ
ZU GERAET CMU

BENENNUNG
REFERENCE BOARD

ZEICHN.-NR.
1100.2600.01 D

BLATT NR. 2-

REG.I.V. 1100 0008 ERSTE Z. 1100.0008

FUER DIESE UNTERLAGE BEHALTEN WIR UNS ALLE RECHTE VOR

ROHDE&SCHWARZ

Measurements
Division

Service Documents

OCXO REFERENCE

CMU-B11/12

1110.2900.02/03

Printed in the Federal
Republic of Germany

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Opening the OCXO REFERENCE OSC. Module 6.3

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6 OCXO REFERENCE OSC.

The option *OCXO REFERENCE OSC.* serves as a high-precision and stable reference element for the frequency generation of the CMU.
It consists of a printed circuit board with the reference element OCXO (Oven-Controlled Crystal Oscillator) and the associated control circuit. A potentiometer for adjustment of the OCXO is additionally provided.

The option OCXO REFERENCE OSC. is directly inserted on the MOTHERBOARD and screwed to the instrument frame by means of three screws.
It is installed on the right side below the fan so that the potentiometer is easily accessible from outside without opening the CMU tube.

The options CMU-B11 and B12 are of identical design and only differ in the technical data of the OCXO, i.e. aging and frequency drift.

Function Description

The *OCXO REFERENCE OSC.* module consists of the printed circuit board with the control circuit for the OCXO and the OCXO proper (see circuit diagram 1100.2900.01 S).

Function

The voltage +12 V Standby at the MOTHERBOARD connector X212.7 is adjusted to +10 V via the voltage stabilization circuit with the emitter follower V4.

The circuit described also permits the OCXO reference element to be switched off completely. This is controlled from the module REFERENCE BOARD by means of V3 and the line SOCXO (X212.9) and is always done when the CMU is switched to external synchronization.
The regulated +10-V voltage is directly routed to the OCXO reference element G1 (fitted with CMU-B11) or G2 (fitted with CMU-B12) and puts it into operation.

Heating

The OCXO reference element is equipped with a built-in heating, which heats up the element to a constant temperature.
The current consumption of the OCXO in the cold state is greater than after a certain warm-up period.

Frequency generation

When the heating starts, the oscillator of the OCXO simultaneously starts to oscillate and output a 10-MHz TTL signal at G1.4 (fitted with CMU-B11) or G2.3 (fitted with CMU-B12). This signal shows a drift in frequency until the constant warm-up temperature is achieved (warm-up period).
This warm-up period is shorter for Option OCXO CMU- B11 than for Option OCXO CMU-B12.

The 10-MHz TTL signal of the OCXO is taken to the SMD relay K1 which only connects through when the +5.2-V supply voltage at X212.5 of the CMU is provided.
Therefore, in standby mode of the CMU (only +12-V standby voltage provided), the OXCO can only be heated without a 10-MHz TTL signal being applied to the REFERENCE BOARD, which is dead in standby mode.
When the CMU is switched on, the 10-MHz TTL signal is taken via the MOTHERBOARD to the REFERENCE BOARD as reference signal.

Automatic detection

The option OCXO REFERENCE OSC. CMU-B11 and CMU-B12 is automatically detected in the CMU. This is effected via resistor R11 (fitted with CMU-B11) and the line OPTOCXO1 to the REFERENCE BOARD and resistor R12 (fitted with CMU-B12) and the line OPTOCXO2 to the REFERENCE BOARD.

Characteristics

MOTHERBOARD connector X212.3 RFOCXO:

- 10 MHz
- TTL level

Opening the OCXO REFERENCE OSC. Module

Caution!

Make sure to follow the instructions given in the following sections in order not to cause damage to the instrument or endanger people. Please also note the general safety instructions at the beginning of this manual.

To remove the module *OCXO REFERENCE OSC.* proceed as follows:

The option OCXO REFERENCE OSC. is installed at the right side panel below the instrument fan in the CMU. For replacement proceed as follows:

- Switch off the instrument and disconnect from the mains, unscrew the rear-panel feet and pull off the tube towards the rear.
- Place the instrument to the left side, locate the OPTION OCXO.
- If required, it is now possible to take measurements with the option OCXO REFERENCE OSC. installed, since the printed circuit board is easily accessible.
- However, if the option is to be removed, proceed as follows:
  - Unscrew the two countersunk screws on the instrument frame and a combi screw on MOTHERBOARD1.
  - Pull off OPTION OCXO REFERENCE OSC. from the MOTHERBOARD connector, slightly tilt and fold out downwards.
  - Install the new or repaired OPTION OCXO REFERENCE OSC. in the reverse order.
    Make sure that the 10-contact connector to the MOTHERBOARD is correctly inserted.
  - Retighten the three screws.
  - Complete the instrument without causing damage to cables.
  - Connect the instrument to the mains and switch on.
  - Perform manual OCXO adjustment (see section, *Adjustment*).

Special Measuring Equipment and Accessories

A list of the measuring equipment and accessories frequently required with the CMU is to be found at the beginning of this manual. The instruments listed in the following table are required for testing and adjustment of the module *OCXO REFERENCE OSC.*.

Table 6-1: *OCXO REFERENCE OSC.* – Special accessories

Item	Type of instrument	Specifications	Appropriate R&S device	Order No.
1	Digital multimeter	1 mV to 100 V 0.1 mA to 1 A		
2	Frequency counter	1 MHz to 10 MHz		
3	Oscilloscope	DC-100 MHz, 2 channels		

Troubleshooting

The module *OCXO REFERENCE OSC.* consists of a two-layer printed circuit board.

The module accommodates SMD components such as chip capacitors, resistors, diodes and transistors. Prior to troubleshooting, check the module for proper contacts on the MOTHERBOARD.

Notes: *Before starting troubleshooting on the module, check the module for proper contacts on the MOTHERBOARD.*

Also check the supply voltages at components that might be faulty on the module.

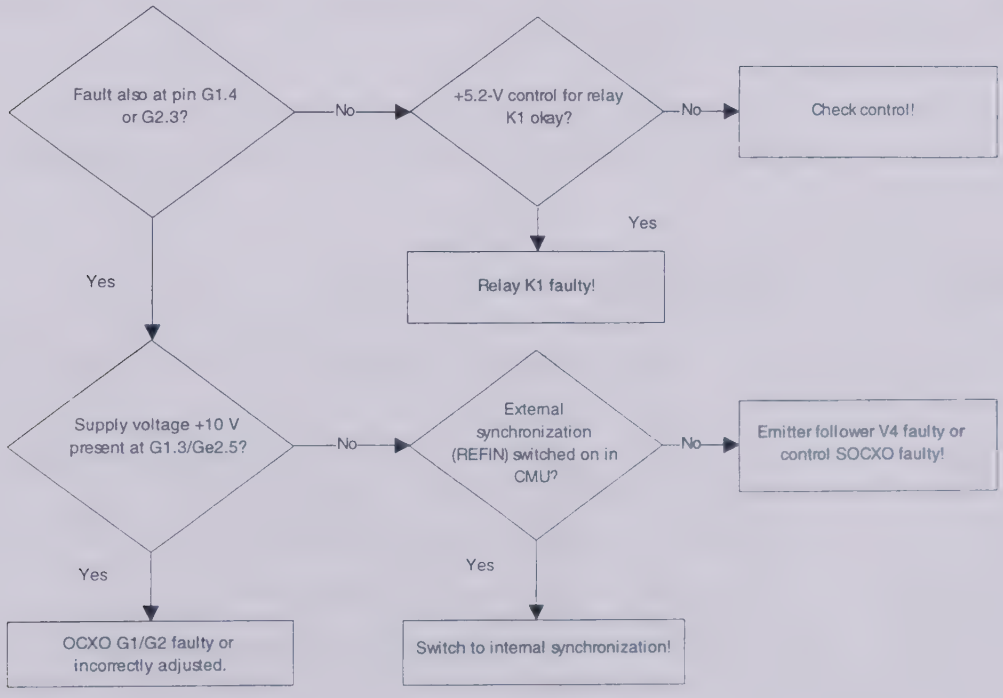
When removing components, suck off the soldering tin using an appropriate desoldering tool.

As the components risk being destroyed on removal, they should only be unsoldered in the case of a proven faulty function. Besides, the printed conductors also risk being detached from the printed circuit board on removal.

For installation, only use new components. To install SMD components, they should first be fixed with a non-conducting adhesive and subsequently be soldered using a fine soldering tip.

Troubleshooting Chart

Fault: No or faulty level / frequency at X212.3?



Testing and Adjustment

The option contains a trimmer; the test is performed with the option installed in the CMU. If the adjustment described below works, the module is also checked.

Trimmers

Function	Test value	Adjustment value	Tolerance	Trimmer	Fig.
Adjustment of reference frequency	X212 3 against X212 4	Frequency: 10 MHz -0.1 Hz /+0.05 Hz	10 MHz 0.1 Hz / +0.05 Hz	R5	

Adjusting the 10-MHz Reference Frequency

Preparation: The measurement can be performed using a frequency counter either at connector REFOUT1 (rear of CMU) at 10 MHz or at connector RF3OUT (front of CMU) at 1 GHz.

➢ When performing the measurement at connector RF3OUT set the generator to 1 GHz and 13 dBm without modulation in the RF menu.

Note: *The measurement at 1 GHz can be performed with a smaller frequency resolution (1 Hz), which accelerates the adjustment.*

Adjustment: For adjustment, the CMU must be set to internal reference source.

➢ This is to be selected in the Sync menu of the respective application.

Adjustment of OCXO REFERENCE OSC. CMU-B11

Note: *The CMU must have been switched on for at least five minutes in order to warm up the OCXO.*

Adjustment:

➢ Using potentiometer R5 on the OCXO REFERENCE OSC adjust the measured value on the frequency counter to

10.000 000 00 MHz -0.1 Hz/+0.05 Hz (at REFOUT1)
or
1.000 000 000 GHz –10 Hz/+5 Hz (at RF3OUT)

(a lead of –2 to –5 Hz at 1 GHz is desired because of aging).

Adjustment OCXO REFERENCE OSC. CMU-B12

Note: *The CMU must have been switched on for at least 10 minutes in order to warm up the OCXO.*

Adjustment:

➢ Use potentiometer R5 on the OCXO REFERENCE OSC. to adjust the measured value on the frequency counter to

10.000 000 00 MHz -0.1/+0.05 Hz (at REFOUT 1)
or
1.000 000 000 GHz –10 Hz/+5 Hz (at RF3OUT)

(a lead of –2 to -5 Hz at 1 GHz is desired because of aging).

Operate the CMU in the horizontal position!

External Interfaces

MOTHERBOARD Connector X212

Entry in column R (direction): O = Output I = Input B = Bidirectional
Entry in column A (type) : A = Analog D = Digital P = Power
Entry in column P/T (test instruction): P = Test value T = Trim value D = Type test value E = setting value

SIGNAL characteristics

Designation	R	A	Value range	P T	Fig. No.	Terminal	Remark
OPTOCXO2	O	P D	via R12 100 Ω to GND with model 03 (CMU-B12), otherwise NC			1	Poll of options for model 03 (CMU-B12)
GND	B	P				2	
HFOCXO	O	A	10 MHz, TTL level			3	RF output signal
GND	B	P				4	
+5.2 V	I	P	+5.2 V +52 mV/-104 mV; I < 30 mA			5	Relay supply
GND	B	P				6	
+12 V STANDBY	I	P	+12 V; +600 mV/-600 mV I ≤ 400 mA			7	OCXO supply
GND	B	P				8	
SOCXO	I	D	TTL signal			9	Activating signal for switching on the OCXO LOW = on HIGH = off
OPTOCXO1	B	P	via R11 100 Ω to GND with model 02 (CMU-B11), otherwise NC			10	Poll of options for model 02 (CMU-B11)

ROHDE&SCHWARZ

Schaltteillisten
Stromläufe
Bestückungspläne

Part lists
Circuit diagrams
Component plans

Listes des pièces détachées
Schémas de circuit
Plans des composants

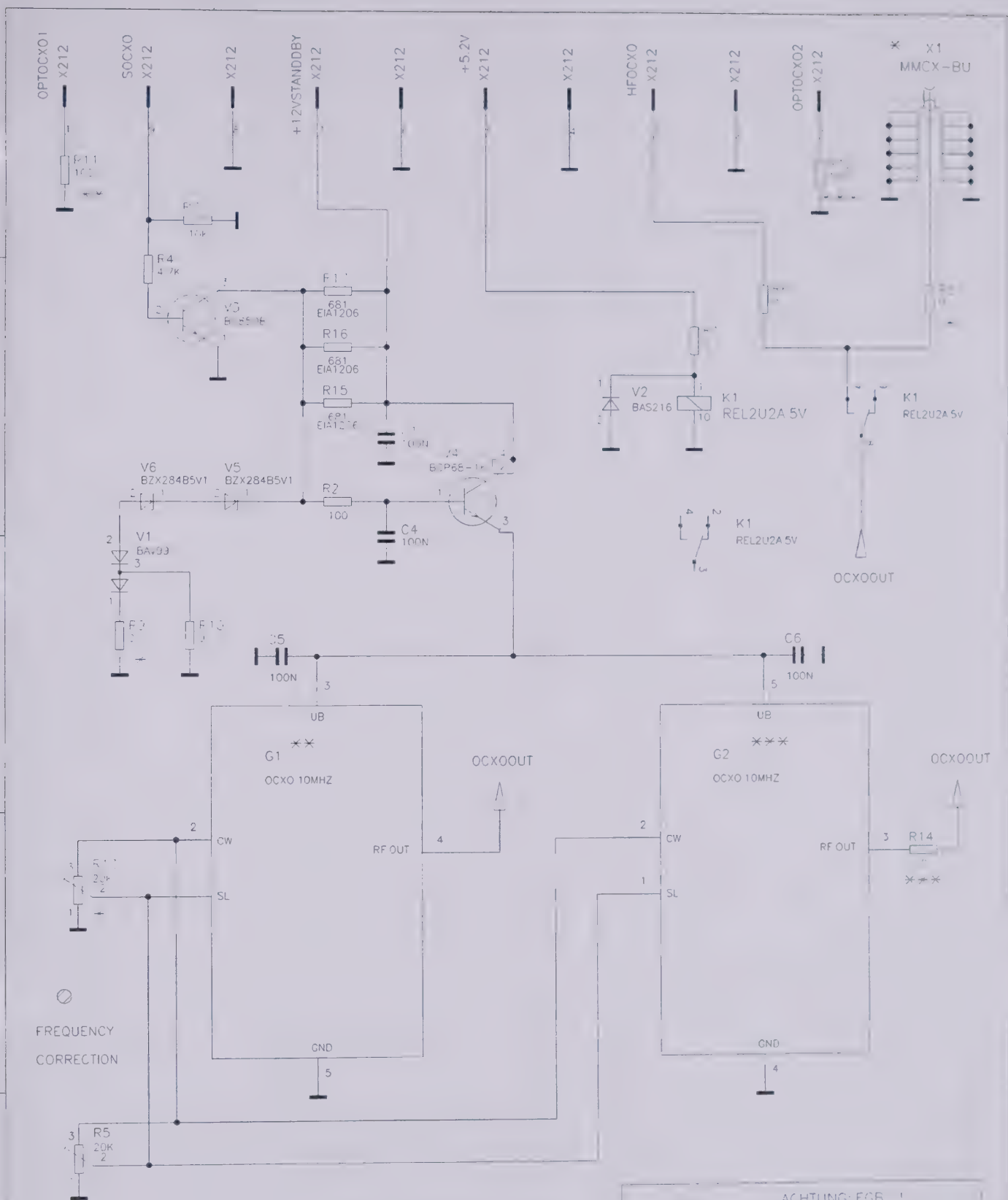
095.1000 Bl. 2

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
.	XX VARIANTENERKLAERUNG IDENTIFICATION OF MODELS				
C1	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C4 ..6	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
G1	EO 10MHZ-QU.OSZ.OCXO 10V CRYSTAL OSCILLATOR OCXO NUR VAR/ONLY MOD: 02	0840.6413.00	TELEQUARZ	OCO 100-02 T 10 MHZ	
G2	EO 10MHZ-QU.OSZ.OCXO 10V CRYSTAL OSCILLATOR OCXO NUR VAR/ONLY MOD: 03	1059.8691.00	KVG	OCXO -S 40	
K1	SN GEPOLT 2XUM 5V MONOST. RELAY	1078.3262.00	MATSUSHITA	TQ2SA-5V(Z)	
R1	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R2	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R4	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R5	RS 0,3W 20KOHM+-10%CERMET CERMET POTENTIOMETER	RS 0086.7950.00	BI_TECHNOL	66X ODER 67X	
R6	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R7	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R8	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R9	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R10	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R11	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	RG 0009.5334.00	DRALORIC	CR 0603	
R12	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	RG 0009.5334.00	DRALORIC	CR 0603	
R13	RS 0,25W 20K MULTI SE SMD POTENTIOMETER	1100.4626.00	BI_TECHNOL	44JR20K	
R14	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R15 ..17	RG 681 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.9080.00	PHILIPS_CO	RC02	
V1	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V2	AD BAS216 75V UDI HIGHSPEED SWITCHING DIODE	0010.9346.00	PHILIPS_SE	BAS216	
V3	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
V4	AK BCP68-16 N 20V TRANS MEDIUM POWER TRANSISTOR	0008.2019.00	PHILIPS	BCP68-25	
V5	AE BZX284-B5V1 0,4W ZDI ZENER DIODE	0048.3516.00	PHILIPS_SE	BZX284-B5V1	
V6	AE BZX284-B5V1 0,4W ZDI ZENER DIODE	0048.3516.00	PHILIPS_SE	BZX284-B5V1	
X1	FJ EINLOETBUCHSE MMCX SMD CONNECTOR	1085.2045.00	IMS	1863.09.2620.001(003	
X212	FP STECKERLEISTE 10P.WINK	FP 1091.2343.00	BERG_ELEKT	87130-510	

Für diese Unterlage behalten
wir uns alle Rechte vor.

1CMK 768 3PLU	Ai	Datum Date	Schaltteilliste für Parts list for	Sachnummer Stock No	Blatt Nr Page
ROHDE&SCHWARZ	03	30.03.99	ED OCXO REFERENCE OSC.	1100.2900.01 SA	1-

095 0026-0693



* Not fitted

** Only fitted on MOD02

*** Only fitted on MOD03

Bindende Angaben ueber Varianten, Trimmwerte, Bauteile und nicht bestueckte Bauteile siehe SA.

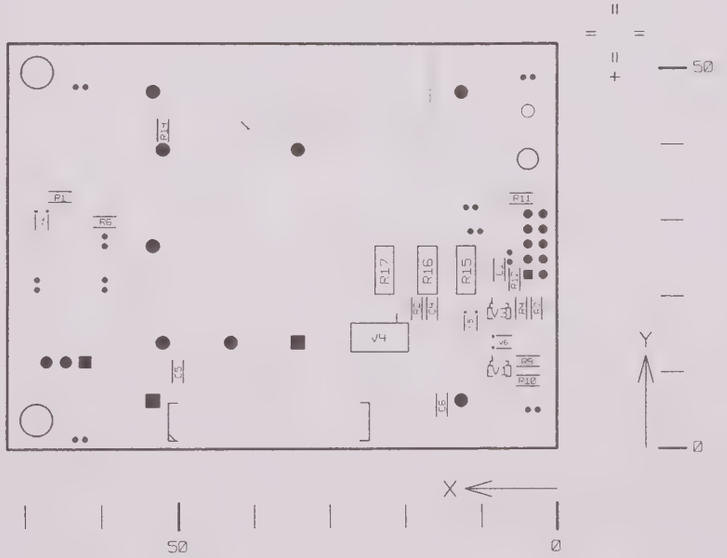
FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST

ACHTUNG: EGB
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG
ATTENTION ESD

							BENENNUNG
							OCXO REFERENCE OSC.
							TOP/TOP 1
							ZEICHN -NR
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME				REG I V 1100 0008

BLATT-NR

FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR



DARSTELLUNG SEITE A
VIEW ON SIDE A

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN UEBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
02.00			

	1CMK	DATUM	NAME
BEARB.			BL_W
GEPR.			BL_W
NORM			
PLOTT	98-09-04		BLEICH_W

ROHDE&SCHWARZ
ZU GERAET CMU-B11

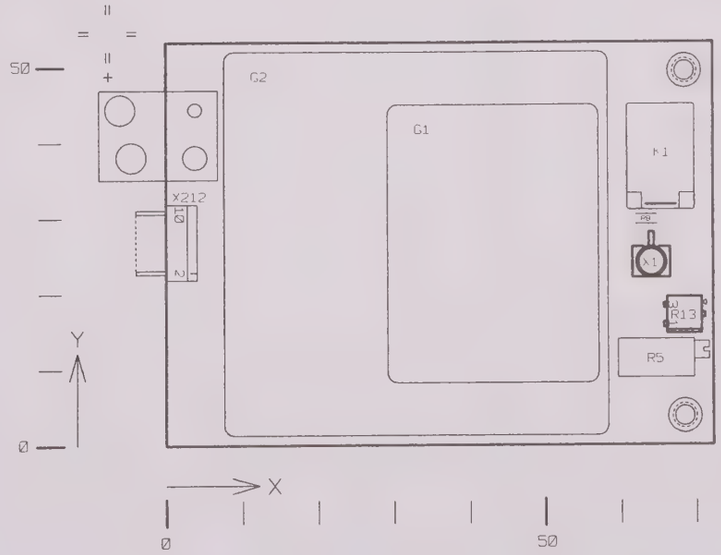
BENENNUNG
OCXO REFERENCE OSC.

ZEICHN.-NR.
1100.2900.01 D

BLATT-NR. 2-
V. BL.

REG.I.V. 1100.0008
ERSTE Z. 1100.5000

FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR



DARSTELLUNG SEITE B
VIEW ON SIDE B

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN UEBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
02.00			

1CMK	DATUM	NAME
BEARB.		BL_W
GEPR.		BL_W
NORM		
PLOTT	98-09-04	BLEICH_W

ROHDE&SCHWARZ
ZU GERAET CMU-B11

BENENNUNG
OCXO REFERENCE OSC.

ZEICHN.-NR.
1100.2900.01 D

BLATT NR. 1+
L. BL.

REG.I.V. 1100.0008 | ERSTE Z. 1100.5000

ROHDE&SCHWARZ

Measurements
Division

Service Documents

UNIVERSAL SIGNALLING UNIT

1100.5216.03

Printed in the Federal
Republic of Germany

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7 UNIVERSAL SIGNALLING UNIT

Determination of Designations

The Option B21, UNIVERSAL SIGNALLING UNIT, consists of:

- Documentation
- Module UNIVERSAL SIGNALLING UNIT (A8, A9 in the CMU block diagram).

  Depending on the version, this module consists of

  1. Motherboard LINK HANDLER (A400)
  2. One sandwich board I/Q OUT MODULE (A430)
  3. Up to four sandwich boards DSP-MODULES (A440, A450, A460 and A470), referred to as DSP-MODULE0 to DSP-MODULE3
  4. One optional sandwich board RAM MODULE (A410)
  5. One optional sandwich board SPEECH INTERFACE (A420)
  6. Aluminum screening cover with screws
  7. One heat conducting mat

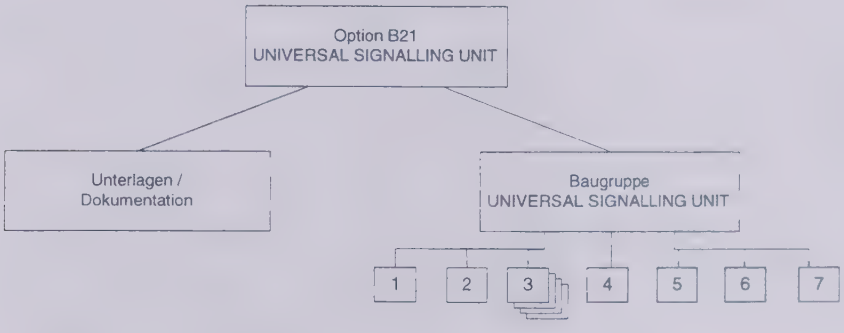


Fig. 7-1: UNIVERSAL SIGNALLING UNIT – Designations

Function Description

The UNIVERSAL SIGNALLING UNIT (block diagram, see Fig. 1-2) permits to set up, maintain and clear down the connection with the device under test (mobile or base station).
Besides, the UNIVERSAL SIGNALLING UNIT is able to set the device under test to the condition required for the measurement in question.
In general, the measurement of the bit error rate is also made on the UNIVERSAL SIGNALLING UNIT, wheras RF and modulation measurements are handled by the DIGITAL BOARD.

The UNIVERSAL SIGNALLING UNIT communicates with the FRONT MODULE computer via the ISA bus and with the DIGITAL BOARD via analog and digital I/Q interfaces. The UNIVERSAL SIGNALLING UNIT obtains the system clock required from the REFERENCE BOARD.

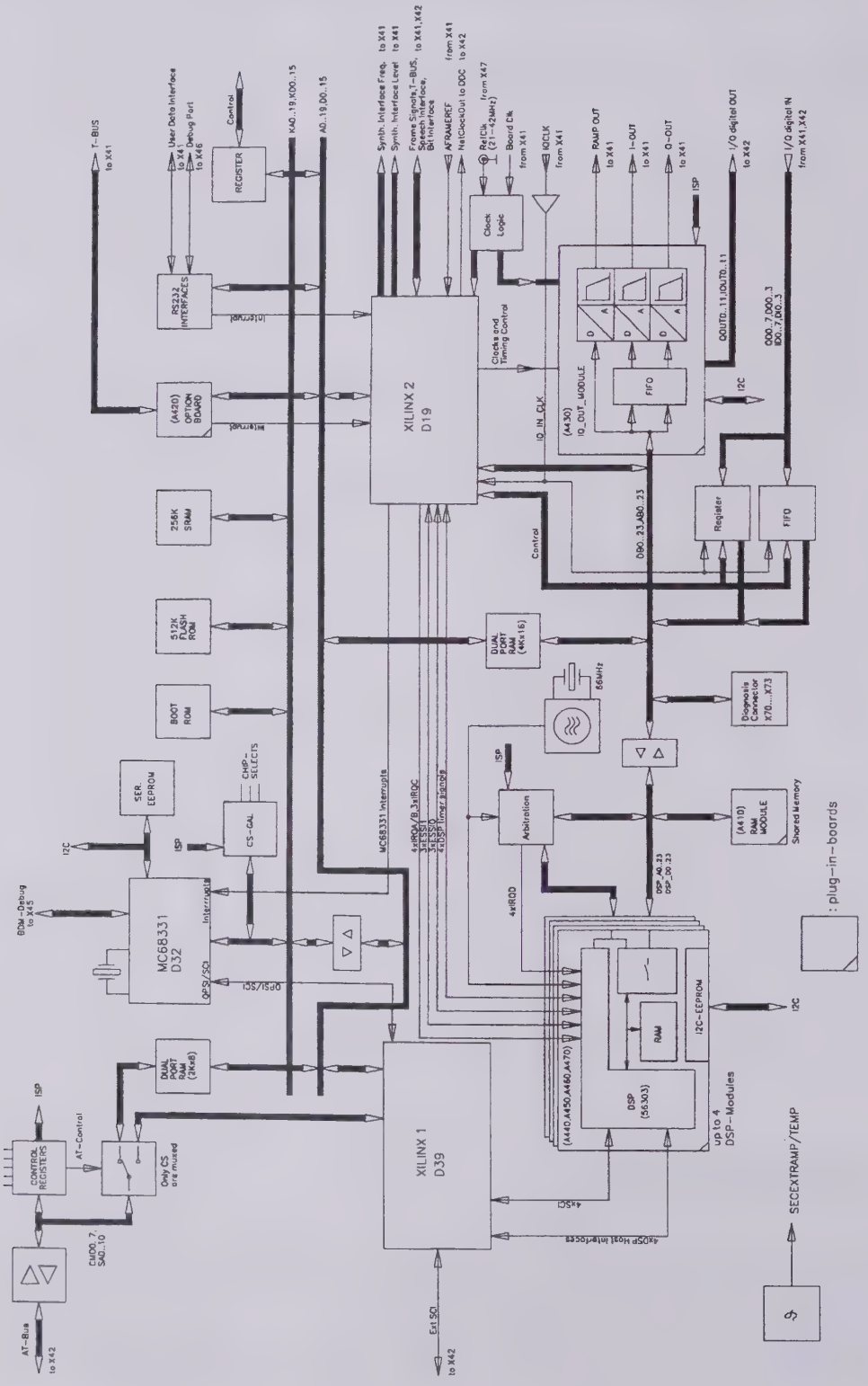


Fig. 7-2: UNIVERSAL SIGNALLING UNIT – block diagram

DSP Unit

Function

The DSP unit (see block diagram Fig. 7-3) handles the complete digital signal processing on the module. Layer 1 of the OSI model is implemented as DSP program.

The maximum computing power of up to 264 DSP-MIPS is produced by maximally four identical plug-on **DSP-MODULEs**. Each **DSP-MODULE** contains a signal processor DSP56303 with a clock frequency of 66 MHz and an external local RAM of up to 512Kx24.

Apart from the serial interfaces (ESSI and SCI) and the interrupts, all DSPs have access to all resources of the UNIVERSAL SIGNALLING UNIT.
For this purpose, the Motherboard LINK HANDLER is provided with a **common DSP bus** shared by the DSPs. This bus enables the access to an optional **Shared RAM** (requires the optional RAM MODULE), which is used for data exchange between the DSPs.
The extension of this bus, the **peripheral bus,** connects the DSPs to all peripheral units of the UNIVERSAL SIGNALLING UNIT that they can access.

In order to coordinate the accesses of the DSPs to the shared bus and avoid conflicts due to simultaneous accesses, the Motherboard LINK HANDLER contains an **arbitration logic**.
This logic works priority-based, with DSP0 having the highest and DSP3 the lowest priority.
A DSP will be assigned the bus on request, if no DSP with a higher priority needs it and if the other DSPs have handed it over. The DSP has to hand over the bus if it is required by a DSP with higher priority or if the DSP does not need the bus any longer and another DSP requests it. Accesses to the local RAM are also possible when another DSP uses the shared bus.

Besides, the arbitration logic contains a chip-select generator for all connected peripheral units, a wait-state generator for the slow peripherals (FPGA 'XILINX2' and dual-port RAM) as well as an interrupt generator, which permits the DSPs to trigger interrupts mutually.

As a low-cost alternative to the communication among the DSPs and to the communication of the DSPs with the MC unit and with the FRONTMODULE computer board, the **host port** interface is available. This is an ISA bus extended into the module and routed further to the DSPs and the MC in the FPGA 'XILINX1'. Via this interface, the DSPs obtain their program from the FRONTMODULE computer and exchange messages among each other or with the MC.

For the communication with the MC, a **dual-port RAM** is available, which can be accessed by the DSPs via the peripheral bus.

To enable I/Q data to be also output in the direction of transmission, the peripheral bus also connects the DSPs to the **I/Q OUT MODULE**, which contains D/A converters for two I/Q channels and, besides, can directly output the I/Q data for the first channel digitally.
The I/Q OUT MODULE contains FIFOs in order for the DSPs to be able to process and output data in blocks.

The digital data received can be read in by the DSPs via an **I/Q In Register or FIFO**. Both the register and the FIFO are able to decimate the received data by omitting samples. However, the associated band limiting, if necessary, must be made externally.

The **FPGA 'XILINX2'** generates the sampling clocks and decimation clocks required on the module. It distributes the interrupts for the DSPs and the MC. Besides, it controls the synthesizer on the RX/TX module with correct timing via a serial interface as instructed by the DSPs.

The **66-MHz clock generator** generates the bus clock required by the DSPs and the arbitration logic with 50% duty cycle and small skew.

Characteristics With maximum configuration:

Maximum computing power:	264 DSP-MIPS (approx. 1500 RISC-MIPS)
Total storage capacity:	2.125 MB
Internal communication:	Shared RAM and host port
External communication:	Dual-port RAM to MC Host port to MC and FRONT MODULE computer Serial interface to RX/TX board
I/Q interface:	2x analog I/Q outputs, max. 1MSps 1x digital I/Q output, max. 1MSps 1x digital I/Q input, max. 1MSps

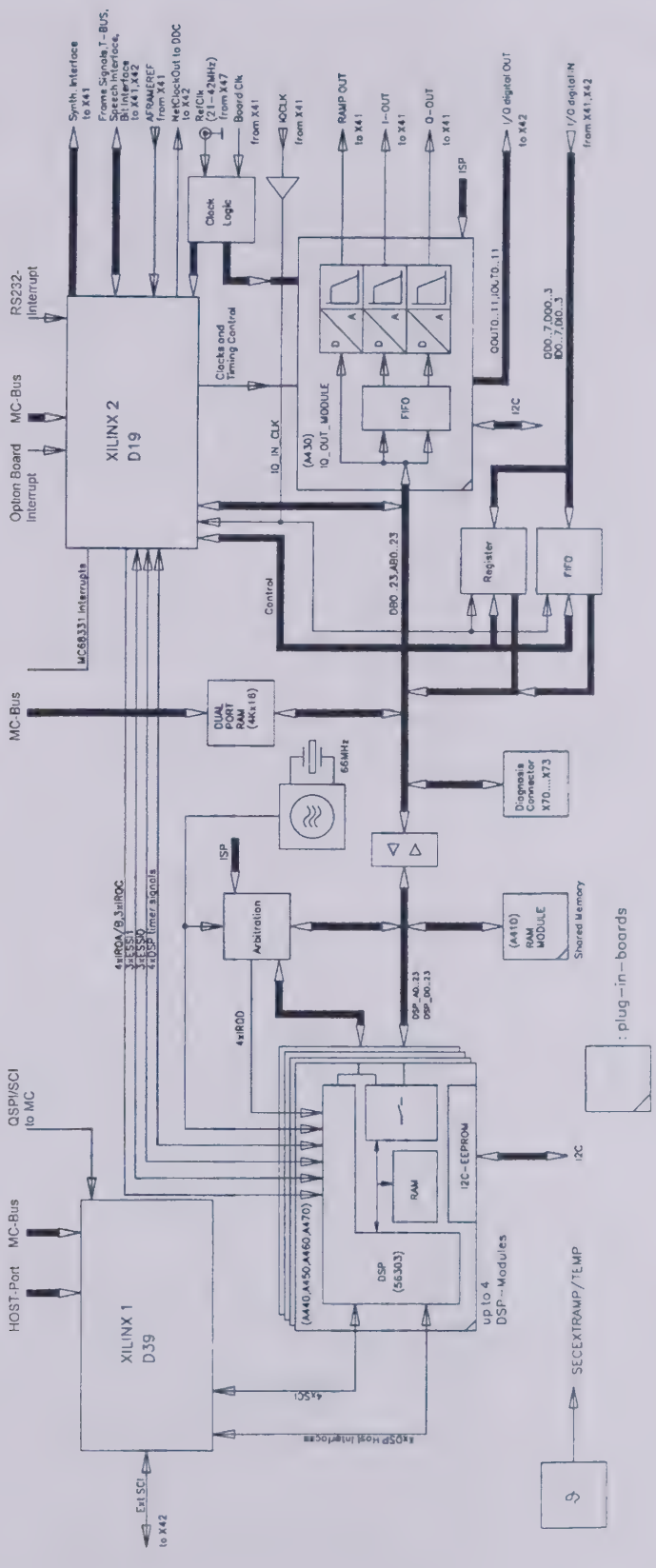


Fig. 7-4: DSP unit – Block diagram

ISA Interface

Function

The ISA interface (see block diagram Fig. 7-5) connects the UNIVERSAL SIGNALLING UNIT via an ISA interface to the FRONT MODULE computer (AT) of the CMU.

Thus, the FRONT MODULE computer gets access to **control and status registers** on the module. The status register permits to poll the plug-on modules (poll of options). The control registers permit reset (RESET) of each DSP and the MC, programming of the FPGA components 'XILINX1' and 'XILINX2', new programming of the CPLDs for arbitration and IQ-Out module and of the MC-Chip-Select-GALs as well as output of the temperature as voltage on the diagnosis line.

The **FPGA 'XILINX1'** permits the FRONTMODULE computer to access the host ports of the DSPs in order to load the program and exchange data. Besides, with the appropriate programming, the FPGA enables the communication between DSP host ports and MC.

The **dual-port RAM**, finally, is used for communication between the FRONTMODULE computer and the MC. In addition to a 2Kx8 memory area, which can be written to and read from both sides, it also contains a mailbox register for the FRONTMODULE computer and the MC. By writing to this register, an interrupt is released on the other side. Thus, messages can be exchanged.

The **temperature sensor** measures the temperature on the Motherboard LINK HANDLER and outputs it as analog voltage on the diagnosis line if the corresponding control register permits this.

Characteristics

Bus connection:	8-bit ISA bus, max. 2MB/sec.
Dual-port RAM:	2K x 8

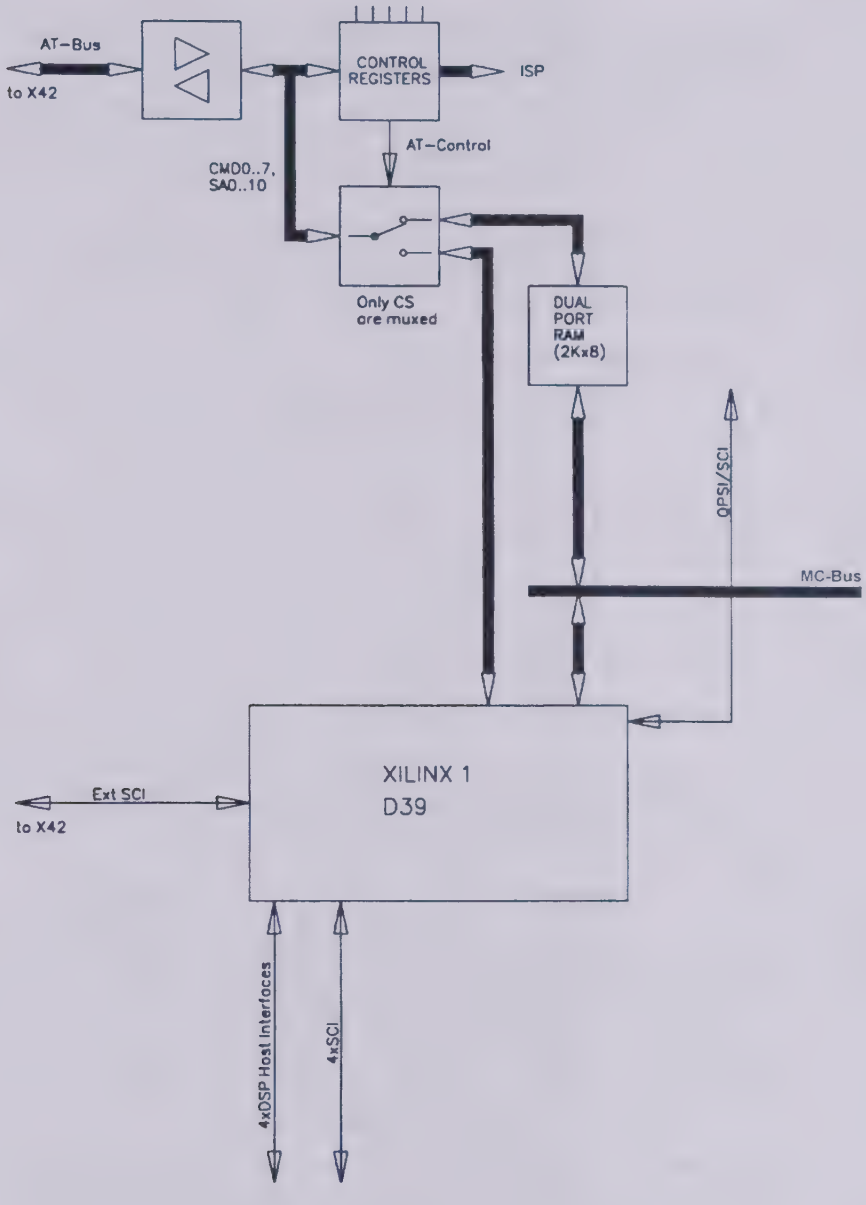


Fig. 7-6: ISA Interface – block diagram

MC Unit (Microcontroller)

Function

On the MC unit (block diagram, see Fig. 7-7), layer 2 and 3 of the OSI model are implemented.

The computing power required for this purpose is provided by the **Microcontroller (MC)**. It communicates with the boot ROM, flash ROM and SRAM via the processor bus. The peripheral components are addressed via a slower buffered bus.

The **boot ROM** provides an ordinary BIOS for the MC so that an executable program is available after booting. This permits the FRONT MODULE computer to load a program for the MC into the FLASH ROM and start it.

The **flash ROM** contains the layer 2 software and the layer 3 software for up to 6 different mobile phone standards. This software can be loaded into the flash PROM by the MC, controlled by the FRONT MODULE computer.

The **SRAM** serves as main memory for the MC.

The **CS-GAL** is used for address coding. It can be reprogrammed from the FRONTMODULE computer.

Two **RS232 interfaces** are provided for the output of debug information and for data exchange with the serial interface on the front panel.

The **FPGA 'XILINX2'** distributes the interrupts between DSP and MC.

The **control registers** permit programming of the FPGAs (which is normally performed from the FRONTMODULE computer), setting of the clock logic and polling of the provided plug-on modules (poll of options).

For the communication with the DSPs, a **dual-port RAM** is available.

The **I^2C interface** permits the microcontroller to read all connected I^2C-EEPROMs and pass on the result to the FRONTMODULE computer on request. Each plug-on module and the motherboard itself are provided with an I^2C-EEPROM, in which serial number, stock number, manufacturing date, operating hours, hardware characteristics and, in the case of the I/Q OUT MODULE, calibration data are stored.

The **slot OPTION BOARD** enables the extension of the UNIVERSAL SIGNALLING UNIT.
For the time being, only the **SPEECH INTERFACE MODULE** is available for this slot, which contains an audio codec with ESSI interface and a memory extension for the MC.
The SPEECH INTERFACE communicates via the ESSI interface with a DSP-MODULE (normally DSP-MODULE3), which performs speech coding. The analog audio signal (HANDSET_IN and HANDSET_OUT) is taken from the CMU front panel to the SPEECH INTERFACE.

Characteristics

Maximum computing power:	5 MIPS
Complete memory capacity:	256K RAM (optional 512K) 512K flash EEPROM 128K boot ROM
External communication:	Dual-port RAM to DSP unit Host port to DSPs Dual-port RAM to FRONT MODULE computer Serial RS232 interface

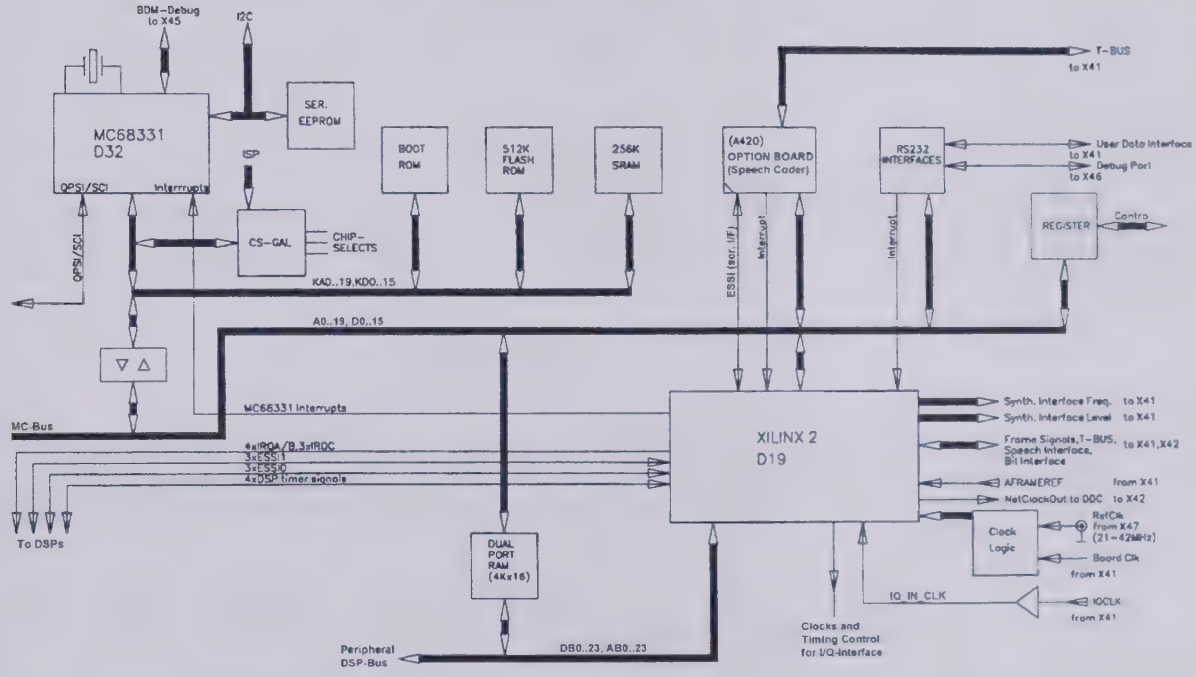


Fig. 7-8: MC unit – block diagram

Opening the UNIVERSAL SIGNALLING UNIT

Caution!

Make sure to follow the instructions given in the following sections in order not to cause damage to the instrument or endanger people. Please also observe the general safety instructions at the beginning of this manual.

To open the UNIVERSAL SIGNALLING UNIT proceed as follows:

- Prerequisite: Pull off the power plug and all other plugs from the CMU, open the CMU and remove the cover on the boards.
- Pull the two metal levers of the board upwards until they are in an upright position.

  The board is lifted by a few millimeters. The plug connections to the motherboard are disconnected.
- Lift the board out of the guide rail and place it on a flat surface with the soldering side pointing upwards.
  Several Phillips screws can be seen in the screening cover.
- Loosen all Phillips screws and take off the (small) screening cover on the soldering side.

  The soldering side of the main board becomes visible.
- Turn the board upside down so that the (thicker) screening cover on the component side points upwards and take it off.

Caution!

A 4-mm-thick heat conducting mat is mounted on the I/Q OUT MODULE (A430). When the board is reassembled again, this mat must be replaced by a new one in order to prevent a heat accumulation. The new heat conducting mat must again cover the right half of the I/Q OUT MODULE, in particular the two big D/A converter components AD566.

To mount the heat conducting mat, first remove the protective foil and then press the mat with the sticking side onto the board.

Note: *In order to remove modules from the motherboard, e.g. for replacement, a special dismounting tool is provided for this purpose.*

If a measurement is required on the open UNIVERSAL SIGNALLING UNIT during operation, a set of extender boards and angle connectors is provided in the Set DIAGNOSE1 for this purpose.

Special Measuring Instruments and Accessories

A list of the measuring instruments and accessories frequently required for the CMU is to be found at the beginning of this manual. The devices listed in the following table are particularly required for testing the UNIVERSAL SIGNALLING UNIT.

Table 7-1: UNIVERSAL SIGNALLING UNIT – special accessories

Item	Type of instrument	Required characteristics	Appropriate R&S device	Order No.
1	Set DIAGNOSE1	Specially for UNIVERSAL SIGNALLING UNIT. Contains diagnosis board with LEDs, extender and angle adapter.		1097.3464.01
2	RS-232 terminal	115200 bit/sec, 8N1		
3	Storage oscilloscope	DC-100 MHz, 2 channels		
4	Spare module UNIVERSAL SIGNALLING UNIT			See module in the instrument.
5	RAM MODULE			1097.3158
6	4 x DSP-MODULE			1097.3129
7	Dismounting tool	for plug-on modules on Motherboard LINK HANDLER included in Service Kit CMU-Z10		1100.7690.00
8	I/Q OUT MODULE			1100.2000
9	SPEECH INTERFACE			1100.2730
10	Digital multimeter	> 3 ½ digits, 200mV - 20V		

Troubleshooting

Before eliminating a fault on the UNIVERSAL SIGNALLING UNIT first check whether the cause for the fault really lies in this board.
The most reliable method to do so is to replace the board and check whether the CMU will then function properly again.

Replacing a Faulty UNIVERSAL SIGNALLING UNIT

To replace the UNIVERSAL SIGNALLING UNIT proceed as follows:

- Prerequisite: Pull off the power plug and all other plugs from the CMU, open the CMU and remove the cover on the boards.
- Pull the two metal levers of the board upwards until they are in an upright position.

  The board is lifted by a few millimeters. The plug connections to the motherboard are disconnected
- Lift the board out of the guide rail and insert the spare board.

  The new board is seated in the guide rail, but the plugs have not engaged yet.
- Press the board downwards until the plugs engage and the dogs of the levers fit on the CMU housing.
- Reassemble the CMU again.
- Connect all cables and switch on the CMU. Press the *MENU SELECT* key and keep it depressed until **VersionManager start** appears in the display.

  The menu of the **Version Manager** appears.
- First make sure that the latest software version is installed on the CMU. Then press the softkey *firmware update after board change*.

  The firmware of all CMU boards including the UNIVERSAL SIGNALLING UNIT is updated. This is necessary, because the required firmware, in particular the contents of the flash ROMs, may depend on the installed CMU software.

If the CMU functions properly after replacing the board, then the original board is supposed to be faulty.
In this case, first perform a FIRMWARE UPDATE for the original board as described above and then try the board once again.
If it still does not work, the following tests can be performed in order to approach the cause of the fault within the board.

Selftest of the MC Unit when Booting

When booting, the MC performs a selftest. The result is output at the serial RS232 interface X46.

To start the selftest, perform the following steps:

- Connect all the cables as well as a keyboard to the CMU.
- Connect an RS232 terminal (115kbaud, 8N1) to X46 of the UNIVERSAL SIGNALLING UNIT.
- Switch on the CMU.
  Important: *The CMU must have been switched off before. A warm start does not work!*

The CMU software is loaded. The startup screen appears.

- Change to the GSM-1800 menu and press the key combination ALT-F4 on the externally connected keyboard.

The CMU software is terminated. The MS-DOS prompt appears.

- Enter **debug** [Enter].

The MS-DOS debugger is started.

- If the first UNIVERSAL SIGNALLING UNIT is involved, enter **o 1C0 FE**.
  If the second UNIVERSAL SIGNALLING UNIT is involved, enter **o 1C8 FE**.

The MC is reset.

- If the first UNIVERSAL SIGNALLING UNIT is involved, enter **o 1C0 FF**.
  If the second UNIVERSAL SIGNALLING UNIT is involved, enter **o 1C8 FF**.

The MC starts.
The result of the selftest is displayed on the connected terminal.
Passed or **Started** must be contained in each line. If this is not the case, the component followed by **Failed** is most probably faulty.

Example of a terminal report of an intact UNIVERSAL SIGNALLING UNIT:

```
GroundHog (c) Copyright 1997 Rohde & Schwarz
Version:         1.7
Build date:      21 Oct 1998 16:28:42
Reset source:    External
ROM test:        Passed
RAM test:        Passed
IPC AT task:     Started
Monitor task:    Started
Flash 0 test:    Passed, 29F400AT
Flash 1 test:    Passed, 29F400AT
DPRAM test:      Passed
DPRAM DSP test:  Passed
Xilinx 1 test:   Passed
Xilinx 2 test:   Passed
Interrupt test:  Passed
IPC AT test:     Started
```

If no selftest is displayed at all, the following causes are possible:

- The RS232 terminal is not correctly connected. Baud rate, parity or stop bits are incorrectly set.

- The DIGITAL BOARD does not work or the FPGAs of the DIGITAL BOARD have not been loaded correctly. The latter is possible, for example, if the CMU software has not been started.
  In both cases, the FRONT MODULE computer cannot address the UNIVERSAL SIGNALLING UNIT, because the required chip-select signals are generated on the DIGITAL BOARD.

- The interface to the FRONT MODULE computer on the Motherboard LINK HANDLER does not work so that the MC cannot be reset. This may be checked by using a storage oscilloscope at X45 pin7 to measure whether a RESET pulse appears and disappears when the MC is reset and started with the debugger.

  Note: *X45 is not fitted, the measurement must be taken at the respective soldering eyelet.*

- The MC unit itself does not work. This may be the case if the boot RAM or the chip-select GAL do not work or are programmed incorrectly, if the microprocessor itself is faulty, if the SRAM is faulty or if there are short-circuits on the bus lines of the microcontroller. Besides, there may as well be a fault in the +5-V voltage supply.

- The RS-232 interface on the UNIVERSAL SIGNALLING UNIT is faulty.

If the selftest is started and no fault is displayed, the MC unit is either okay or the fault cannot be found. If the selftest is not started or shows faults, however, the cause cannot be found, the complete module should be replaced and shipped to your respective Rohde & Schwarz service department.

Testing the DSP Unit

In the future, a tool will be supplied with the CMU software, which performs a test of the DSP arbitration, the DSP memories and the data buses. This software can be used together with the Set DIAGNOSE1 to find faults in the DSP unit.

To start the test perform the following steps:

➢ Connect all cables as well as a keyboard to the CMU.

➢ Plug the DIAGNOSE BOARD from the Set DIAGNOSE1 to X70..X73 of the UNIVERSAL SIGNALLING UNIT and fasten with screws.

➢ If necessary, plug RAM MODULEs to slot A410. Plug DSP-MODULEs to all empty DSP slots. Then switch on the CMU.

Caution!

No module of the board is protected against wrong insertion. When mounting modules make sure not to place them to a wrong position or even twist them, which might cause total damage to the UNIVERSAL SIGNALLING UNIT and the SANDWICH MODULEs.

The CMU software is loaded. The startup screen appears.

➢ Press the key combination *ALT-F4* on the externally connected keyboard.

The CMU software is terminated. the MS-DOS prompt appears.

Enter

➢ **CD TOOLS**
CD ULH
MEMTEST

The memory test software is loaded into the DSPs via the host interface.

For each DSP MODULE, it tests:

- the complete local memory.
- a quarter of the RAM MODULEs (A410) (as 4 DSP-MODULEs are fitted, the complete memory area is tested).
- a quarter of the dual-port RAM to the MC (as 4 DSP-MODULEs are fitted, the complete memory area is tested).
- the access to the DIAGNOSE BOARD from the Set DIAGNOSE1 and the dual-port RAM via the peripheral bus.

The LEDs of the test board indicate the result of the test. The rows of LEDs are arranged from the left to the right and from the top to the bottom in the order of the DSP-MODULEs A440 to A470 (DSP0 to DSP3).
Three green, two yellow and three red LEDs are provided for each DSP.

- The left green LED flashes with approx. 1 Hz when the DSP works.
- The left yellow LED flashes for a few nanoseconds with each fault that has been discovered.
- The right yellow LED lights up for approx. ½ second with each fault.
- The right red LED stores faults and is permanently illuminated as soon as a fault has been discovered.

If the UNIVERSAL SIGNALLING UNIT functions properly, **4 green LEDs should flash** and **all other LEDs remain dark** in this test.

To be sure, the test should run for at least **5 minutes**.

If no green LED flashes, the following causes are possible:

- The DIGITAL BOARD does not function properly or the FPGAs of the DIGITAL BOARD have not been loaded correctly.
  The latter is possible, for example, if the CMU software has not been started.
  In both cases, the FRONTMODULE computer cannot address the UNIVERSAL SIGNALLING UNIT, because the required chip-select signals are generated on the DIGITAL BOARD.

- Loading of the FPGAs on the Motherboard LINK HANDLER does not work.
  In this case, the FPGA 'XILINX1' and, as a result of this, the host-port interface of the DSPs via which the software is to be loaded do not work either.

- The interface to the FRONTMODULE computer on the Motherboard LINK HANDLER does not work so that the DSPs cannot be reset or started.
  This can be checked by removing DSP-MODULEs with the UNIVERSAL SIGNALLING UNIT switched off and using a storage oscilloscope at X442, X452, X462 and X472 at pin24 to measure whether a RESET pulse appears when the memory test software is started.

- The DSP unit itself does not function.
  This may be the case if the arbitration FPGA does not work or is incorrectly programmed, if the clock generator does not work, if the bus drivers D421, D422, D423 or D424 are faulty or if there are short-circuits on the common bus lines of the DSPs.
  Besides, a fault of the +5-V or +3.3-V voltage supply is also possible.
  Theoretically, it is also possible that all four DSP-MODULEs are faulty, however, this is not probable.

If one or several red LEDs are illuminated, the following is true:

One or several DSP-MODULEs or the associated slots on the motherboard do not function. Unfortunately, it is not possible to reliably derive the faulty DSP MODULE or the faulty DSP MODULE slot from the illuminated red LEDs.

Locating of the fault is therefore only possible by trial and error:

➢ Replace all original DSP-MODULEs inserted on the UNIVERSAL SIGNALLING UNIT by new ones.
If the board still fails in the DSP memory test, there will most probably be a problem with the Motherboard LINK HANDLER.

This may be due to the following causes:

- Faulty soldering points, mainly at the SMD plugs of the DSP-MODULE slots or of the shared-RAM slot.

- The arbitration FPGA does not function or contains the wrong software (may have been deleted by a program crash, which, however, is very improbable).

- The bus drivers D421, D422, D423 or D424 do not work.
  In this case, the dual-port RAM or the DIAGNOSIS BOARD cannot be addressed correctly. If the DIAGNOSIS BOARD can still be addressed correctly, it should be possible to see the left yellow LED of each DSP flash at regular intervals with the naked eye.

- There are short-circuits on the bus lines.
  In this case, it should also be possible to see the left yellow LED of each DSP flash at regular intervals with the naked eye.

- The supply voltages 3.3 V or 5 V are wrong or include big voltage drops (>100 mV).
  This may lead to sporadic incorrect behavior of the logic components.

➢ If the board functions after replacing all DSP-MODULEs, the modules should be individually replaced by the original modules again.
The memory test is to be repeated following each module replacement. If it fails, the last inserted DSP-MODULE is faulty or features the wrong stock number or version. It should be replaced.

➢ If all DSP-MODULEs have been replaced by the original modules and the fault has not occurred again, there is probably a loose contact. In particular the soldering points at the SMD plug connections of the DSP and shared-RAM slots may be concerned.

Other Error Sources

If the memory test of the DSPs does not indicate any fault and no faults occur in the MC selftest either, though the UNIVERSAL SIGNALLING UNIT does not work, the fault may be due to the following causes:

- The I/Q OUT MODULE might be faulty. This may be easily proven by a module replacement.
- The SPEECH INTERFACE might be faulty. This can also be easily proven by a module replacement.
- The +12-V or –12-V supply might have failed. In this case, the I/Q OUT MODULE will not output any analog I/Q-values. However, digital behavior would be correct.
- A wrong version of the UNIVERSAL SIGNALLING UNIT might be fitted. The CMU requires the version .02.

All other faults cannot be found without soldering, in-circuit testing or performing complicated measurements. Should it not be possible to find and eliminate the fault using the procedures described above, the complete board should be replaced and shipped to your respective Rohde & Schwarz service department.

External Interfaces

Signal Description	Contact	Remarks
Ground	X41.A1, X41.A3, X41.A5, X41.A8, X41.A10, X41.A14, X41.B5, X41.B8, X41.B12, X41.B16, X41.B18, X41.B20, X41.B22, X41.C1, X41.C21, X41.C31, X42.A1, X42.A2, X42.A3, X42.A31, X42.B20, X42.B22, X42.B24, X42.B26, X42.B28, X42.B30, X42.B32, X42.C2, X42.C10, X42.C18, X42.C26, X42.C32	Digital Ground
+5VREF	X41.A2	5-V reference
-15.3 V	X41.A4	Negative analog supply voltage
+15.3 V	X41.A11	Positive analog supply voltage
+5.2 V	X41.A6, X41.A7, X41.B6, X41.B7	Digital supply voltage
+7.7 V	X41.A9	Unused
IOUT[11..0]	X42.B14, X42.B15, X42.B16, X42.B17, X42.C9, X42.C8, X42.C7, X42.C6, X42.C5, X42.C4, X42.C3, X41.A12	digital values of primary I-channel, sampled with IQOUTCLK
QOUT[11..0]	X42.B18, X42.B19, X42.A21, X42.A22, X42.C17, X42.C16, X42.C15, X42.C14, X42.C13, X42.C12, X42.C11, X41.A13	digital values of primary Q-channel, sampled with IQOUTCLK
IQOUTCLK	X42.B13	Clock for IOUT and QOUT
PRITXI	X41.A21	Analog primary I-output
PRITXQ	X41.A22	Analog primary Q-output

PRILEVENTX	X41.A20	Ramp voltage for PRI-I/Q.
PRITXIQGND	X41.A23	Ground for primary I/Q
SECTXI	X41.A30	Analog secondary I-output
SECTXQ	X41.A31	Analog secondary Q-output
SECLEVENTX	X41.A29	Ramp voltage for SEC-I/Q.
SECTXIQGND	X41.A32	Ground for secondary I/Q
SECEXTRAMP	X42.B21	**GSM-CMD**: Is added to SECLEVENTX **CMU**: Diagnosis voltage
SECEXTI	X42.B23	GSM only: Is added to SECTXI
SECEXTQ	X42.B25	GSM only: Is added to SECTXQ
PRIEXTRAMP	X42.B27	GSM only: Is added to PRILEVENTX
PRIEXTI	X42.B29	GSM only: Is added to PRITXI
PRIEXTQ	X42.B31	GSM only: Is added to PRITXI
PRISYNTHCLK	X41.A15	Clock for primary synthesizer
PRISYNTHDATA	X41.A16	Clock for primary synthesizer
PRISYNTHEN0	X41.A17	Chip-Select for 1st register of primary synthesizer
PRISYNTHEN1	X41.A18	Chip-Select for 2nd register of primary synthesizer
PRISYNTHEN2	X41.A19	Chip-Select for 3rd register of primary synthesizer
SECSYNTHCLK	X41.A24	Clock for secondary synthesizer
SECSYNTHDATA	X41.A25	Clock for secondary synthesizer
SECSYNTHEN0	X41.A26	Chip-Select for 1st register of secondary synthesizer
SECSYNTHEN1	X41.A27	Chip-Select for 2nd register of secondary synthesizer
SECSYNTHEN2	X41.A28	Chip-Select for 3rd register of secondary synthesizer
LEVCLK	X41.B1	Synthesizer control, not yet used.
LEVDATA	X41.B2	Synthesizer control, not yet used.
FRAME1	X41.C11	Application-specific trigger.
FRAME2	X41.B13	Application-specific trigger.
AFRAMEREF	X41.B14	Application-specific trigger.
AFGENMON	X41.B9	Connection to option board.

HANDSETIN	X41.B10	Connection to option board.
HANDSETOUT	X41.B11	Connection to option board.
XSPTXDATA	X41.B24	Connection to option board via 10Ω.
XSPTXRDY	X41.B28	Connection to option board via 10Ω.
XSPRXCLK	X41.B27	Connection to option board via 10Ω.
XSPSP	X41.B30	Connection to option board via 10Ω.
BSPRXDATA	X41.B25	Connection to option board via 10Ω.
BSPTXCLK	X41.B26	Connection to option board via 10Ω.
BSPTXSFM	X41.B31	Connection to option board via 10Ω.
BSPBFI	X41.B29	Connection to option board via 10Ω.
PRISPTAF	X41.B32	Connection to option board via 10Ω.
RIA	X41.C2	Ring Indicator
DTRA	X41.C3	Data Terminal Ready
CTSA	X41.C4	Clear To Send
TXDA	X41.C5	Transmit Data
RTSA	X41.C6	Request To Send
RXDA	X41.C7	Receive Data
DSRA	X41.C8	Data Set Ready
DCDA	X41.C9	Carrier Detect
SCIEXTRXD	X42.A28	DSP: RX-Data
SCIEXTTXD	X42.A29	DSP: TX-Data
SCIEXTSCLK	X42.A30	DSP: Clock f. SCI
BOARDCLKEN	X41.C12	Enable BOARDCLKIN.
BOARDCLKIN	X41.C32	System-specific clock from motherboard.
NETCLK	X42.A32	Internal net clock
ID[7 .. 0]	X41.C20, X41.C19, X41.C18, X41.C17, X41.C16, X41.C15, X41.C14, X41.C13	8 MSBs of the digital I-input data.

DI[3..0]	X42.A12, X42.A13, X42.A14, X42.A15	4 LSBs of the digital I-input data.
QD[7 .. 0]	X41.C29, X41.C28, X41.C27, X41.C26, X41.C25, X41.C24, X41.C23, X41.C22	8 MSBs of the digital Q-input data.
DQ[3..0]	X42.A16, X42.A17, X42.A18, X42.A19	4 LSBs of the digital Q-input data.
IQCLK	X41.C30	Clock for ID and QD
SD[7..0]	X42.A11, X42.A10, X42.A9, X42.A8, X42.A7, X42.A6, X42.A5, X42.A4	ISA-data bus
ISA_SA[10..0]	X42.B11, X42.B10, X42.B9, X42.B8, X42.B7, X42.B6, X42.B5, X42.B4, X42.B3, X42.B2, X42.B1	ISA-address bus
ISA_IOW	X42.A23	ISA-IOW
ISA_IOR	X42.A24	ISA-IOR
ISA_SMEMR	X42.A25	ISA-MEMR
ISA_SMEMWR	X42.A26	ISA-MEMWR
CSDPRAM	X42.C27	Chip-Select for AT-MC-Dual-Port-RAM
CSLHCONTROL	X42.C28	Chip-Select for control registers in I/O-space.
LHDRVENABLE	X42.C29	Output-Enable for data buffers
DRVDIR	X42.C30	Direction for data drivers.

LHINT	X42.C31	Interrupt output
ISA_RESET	X41.B23	RESET from ISA bus
TBUS[7..1]	X42.C25, X42.C24, X42.C23, X42.C22, X42.C21, X42.C20, X42.C19	Reserved control and trigger signals.
N.C.	X41.B3, X41.B4, X41.B15, X41.B17, X41.B19, X41.B21, X41.C10, X42.A20, X42.A27, X42.B12, X42.C1	Not connected

MMCX Socket

Entry in column D (direction): O = Output, I = Input, B = Bidirectional
Entry in column T (type): A = Analog, D = Digital, P = Power
Entry in column TI (test instructions): P = Test value, T = Trimming value, D = Type test
value: E = Setting value

Signal Description	D	T	Range	Contact	Remarks
REFCLKIN	I	D	3.3 V, 5 V (LVT-Input)	X47	System-specific clock via cable.

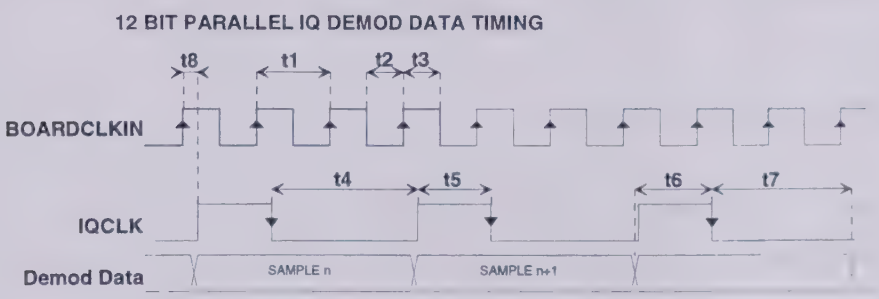
Remark: *Switching between REFCLKIN and BOARDCLKIN is done by DIP-switches resp. 0 Ω-resistors. REFCLKIN is not used anymore, except for experimental boards.*

Timing Information

BOARDCLKIN, IQCLK, IDx from CMU DIGITAL BOARD

Note: *Timing is valid for CMU only!*

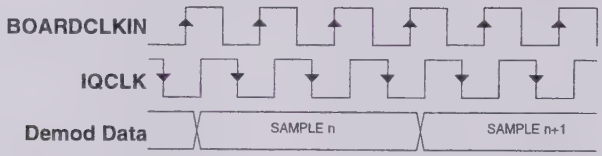
If BOARDCLKIN > IQCLK:



description	symbol	min	max	units
reference frequency	t1	0.1	30	MHz
reference frequency BOARDCLKIN LOW time	t2	10	-	ns
reference frequency BOARDCLKIN HIGH time	t3	10	-	ns
sample clock IQCLK LOW time	t4	20	-	ns
sample clock IQCLK HIGH time	t5	20	-	ns
Setup-time Data valid to IQCLK ↓	t6	15	-	ns
Hold-time IQCLK ↓ to Data invalid	t7	15	-	ns
reference frequency BOARDCLKIN ↑ to sample clock IQCLK ↑ or ↓	t8	3	15	ns

If BOARDCLKIN = IQCLK (not for ULH):

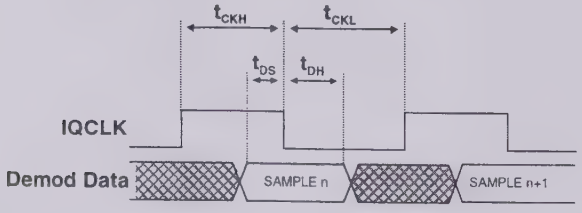
12 BIT PARALLEL IQ DEMOD DATA TIMING



Timing information: see above

IQCLK and IDx required by ULH

12 BIT PARALLEL IQ DEMOD DATA TIMING



description	symbol	min	max	units
IQCLK HIGH time	t_{CKH}	15	∞	ns
IQCLK LOW time	t_{CKL}	15	∞	ns
Setup-time Data valid to IQCLK ↓	t_{DS}	4	∞	ns
Hold-time IQCLK ↓ to Data invalid	t_{DH}	15	∞	ns

Registers for the AT

Linkhandler Addresses in CMD and CMU

Instrument	I/O Address	Memory Base Address
CMD	$18C	$D400:0000
CMU, LH01	$1C0 - $1C7	old: $D000:0000 new: $D600:0000 (ab big bang)
CMU, LH02	$1C8 - $1CF	old: $D100:0000 new: $F700:0000 (ab big bang)

Mode Control Register

Addressing

Memory space	I/O
Read / Write	W
Chip-Selects	$\overline{\text{CSLHCONTROL}} = 0$, $\overline{\text{IOW}} = 0$

Bits

Bit number	Name	Reset	Purpose
0	LH_RESET	0	Reset the MC.
1	XILENA	0	selects DPR. CSDPRAM selects XILINX & ISP.
2		0	Enables XILINX-Programming, if MC's PROGSEL=1.
3		0	Reset DSP0, if HOSTSEL of MC=1.
4		0	Reset DSP1, if HOSTSEL of MC=1.
5		0	Reset DSP2, if HOSTSEL of MC=1.
6		0	Reset DSP3, if HOSTSEL of MC=1.
7	PROGENA_ ISP	0	Enables ISP-programming and temperature measurement.

Option Poll Register

Addressing

Memory space	I/O
Read / Write	R
Chip-Selects	$\overline{\text{CSLHCONTROL}} = 0$, $\overline{\text{IOR}} = 0$

Bits

Bit number	Name	Reset	Purpose
0	DONE	X	for XILINX-programming
1	$\overline{\text{INT\_AT\_DPRAM}}$	X	Message interrupt to MC
2	IRQ3_INIT	X	for XILINX-programming
3	OPT_SHMEM	X	RAM MODULE is not fitted
4	OPT_LOG0	X	see OPT_LOGx table
5	OPT_LOG1	X	see OPT_LOGx table
6	OPT_MOD0	X	see OPT_MODx table
7	OPT_MOD1	X	see OPT_MODx table

OPT_LOGx table

OPT_LOG0	OPT_LOG1	Module fitted
0	0	CMU B-52 is fitted
0	1	reserved
1	0	reserved
1	1	no module is fitted

OPT_MODx table

OPT_MDO0	OPT_MOD1	Module fitted
0	0	reserved
0	1	TETRA-IQ-Out-Module
1	0	reserved
1	1	no module is fitted or module has I2C.

Problem: GSM-IQ-Out-Module does not use the option-poll lines so far.

ISP and Temperature Control Register

Addressing

Memory space	Memory, $0100
Read / Write	W
Chip-Selects	$\overline{\text{CSDPRAM}} = 0$, $\overline{\text{SMEMWR}} = 0$
Software-Enable	XILENA=1, PROGENA_ISP=1 As soon as this condition isn't met anymore, the register is cleared.

Bits

Bit number	Name	Reset	Purpose
0	ISP_TMS_AR	0	ISP: inverted TMS for arbitration FPGA.
1	ISP_TMS_CS	0	ISP: inverted TMS for MC-Chip-Select-GAL 22V10.
2	ISP_TMS_DA	0	ISP: inverted TMS for FPGA on IQ-OUT-Module.
3	ISP_TMS_R	0	ISP: inverted TMS for 'Reserved'.
4	ISP_TCK	0	ISP: inverted TCK for arbitration and IQ-out-module-FPGA; inverted ISPCLK for MC-Chip-Select-GAL 22V10.
5	ISP_TDI	0	ISP: inverted TDI for arbitration and IQ-out-module-FPGA.
6	ISP_TDI_CS	0	ISP: non inverting ISPDI for MC-Chip-Select-GAL 22V10.
7	TEMP_MEAS	0	1: Drive voltage of temperature sensor to SECEXTRAMP.

ISP Read Register

Addressing

Memory space	Memory, $100
Read / Write	R
Chip-Selects	$\overline{\text{CSDPRAM}} = 0$, $\overline{\text{SMEMRD}} = 0$
Software-Enable	XILENA=1

Bits

Bit number	Name		Purpose
0			Value undefined.
1			Value undefined.
2			Value undefined.
3			Value undefined.
4			Value undefined.
5			Value undefined.
6	ISP_TDO_CS		ISPDO from the MC-Chip-Select-GAL 22V10.
7	ISP_TDO		TDO from arbitration and IQ-out-module-FPGA.

XILINX Register

Addressing for Read

Memory space	Memory, $0000
Read / Write	R
Chip-Selects	$\overline{\text{CSDPRAM}} = 0, \overline{\text{SMEMRD}} = 0$
Software-Enable	XILENA=1

Addressing for Write

Memory space	Memory, $0000
Read / Write	W
Chip-Selects	$\overline{\text{CSDPRAM}} = 0, \overline{\text{SMEMWR}} = 0$
Software-Enable	XILENA=1

The register model can be read in the „Specification XILINX FPGA 1“ documentation.
The register model may also depend on the service (GSM, IS136,...) used.

ROHDE&SCHWARZ

Schaltteillisten
Stromläufe
Bestückungspläne

Part lists
Circuit diagrams
Component plans

Listes des pièces détachées
Schémas de circuit
Plans des composants

095.1000 Bl. 2

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
.	XX VARIANTENERKLAERUNG IDENTIFICATION OF MODELS				
B1	EQ 32,768KHZ MC-306 QUARTZ CRYSTAL UNIT	1097.6557.00	SEIKO	MC-306 32,768 KHZ	
C1	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C50OPT*	
C2	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C50OPT*	
C3	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C4	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C5 ..27	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C28	CE 4,7UF+-10% 10V 3528 TANTALUM SMD-CAPACITOR	CE 0007.7275.00	SPRAGUE	293D 475 X9 010 B2T	
C29	CE 4,7UF+-10% 10V 3528 TANTALUM SMD-CAPACITOR	CE 0007.7275.00	SPRAGUE	293D 475 X9 010 B2T	
C30	CE 10UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7246.00	SPRAGUE	293D 106 X9 025 D2W	
C31 ..38	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C39	CE 10UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7246.00	SPRAGUE	293D 106 X9 025 D2W	
C40	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NUR VAR/ONLY MOD: 04	CC 0009.4844.00	MURATA	GRM39X7R***K5C50OPT*	
C41	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C42	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C43	CE 100UF+-20% 16V 7343H TANTAL CAPACITOR	6100.8200.00	AVX	TPSE107M016R0100	
C44	CC 18PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR NUR VAR/ONLY MOD: 04	0048.3622.00	MURATA	GRM39COG***F50ZPT	
C45	CC 15PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	0009.8227.00	MURATA	GRM39COG***F50ZPT	
C46 ..50	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C51	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C50OPT*	
C52	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C53	CC 4,7PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR NUR VAR/ONLY MOD: 02	0009.4538.00	MURATA	GRM39COG***B50ZPT	
C54 ..58	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C59	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C60 ..62	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C63	CC 5,6PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	0009.4521.00	MURATA	GRM39COG***B50ZPT	
C64	CC 5,6PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	0009.4521.00	MURATA	GRM39COG***B50ZPT	
C65	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C66	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C50OPT*	
C67 ..72	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C73	CC 33NF+-10% 25V HDK 0603 CERAMIC CHIP CAPACITOR	1051.4697.00	AVX	CM105X7R333K25VAT	
C74	CC 33NF+-10% 25V HDK 0603 CERAMIC CHIP CAPACITOR	1051.4697.00	AVX	CM105X7R333K25VAT	
C75 ..94	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C95	CC 33NF+-10% 25V HDK 0603 CERAMIC CHIP CAPACITOR	1051.4697.00	AVX	CM105X7R333K25VAT	
C96	CC 33NF+-10% 25V HDK 0603 CERAMIC CHIP CAPACITOR	1051.4697.00	AVX	CM105X7R333K25VAT	
C97 ..122	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	

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Kennz Comp No	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C123	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C124	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
C125 ..130	CE 33UF+-20%25V RUND SMD SMD-ELECTROLYTIC CAPACIT.	0009.5592.00	PANASONIC	EEV HB 1E 330P	
C131 ..151	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C152 ..157	CE 100UF+-20%16V RUND SMD SMD-ELECTOLYTIC CAPACIT.	CE 0009.6553.00	SANYO	16CV100F(G)S	
C158 ..163	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C164 ..176	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C177	CC 2,2NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4767.00	MURATA	GRM39X7R***K5C500PT*	
C178	CE 10UF +-10% 10V 6032 TANTALUM SMD-CAPACITOR	CE 0007.7281.00	SPRAGUE	293D-106X9 016 C2W	
C179	CE 10UF +-10% 10V 6032 TANTALUM SMD-CAPACITOR	CE 0007.7281.00	SPRAGUE	293D-106X9 016 C2W	
C180 ..183	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C184	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C185	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C186 ..189	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C190	CC 3,3NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	0048.5390.00	MURATA	GRM39X7R332K5C500PT	
C191	CC 15NF+-5% 25V HDK 0603 SMD CAPACITOR	0048.4064.00	MURATA	GRM39X7R153J25PT	
C193	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C194	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 02	1097.6292.00	PHILIPS_CO	2238 786 16649	
..197					
C198 ..202	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C203	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 04	1097.6292.00	PHILIPS_CO	2238 786 16649	
C204	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C206	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C207	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C208	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR NUR VAR/ONLY MOD: 04	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C209	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C318	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
D1	BL 74AHC1G14DBV SINGLE SCHMITT TRIG GATE	1100.4884.00	TEXAS_INST	SN74AHC1G14DBV(R)	
D2	BL 74ACT04SC 6X INVERTER IC HEX INVERTER	BL 1012.9379.00	HARRIS	(CD74)ACT04(M)	
D3	BL 74AHC1G14DBV SINGLE SCHMITT TRIG GATE	1100.4884.00	TEXAS_INST	SN74AHC1G14DBV(R)	
D4	BL 74ACT32SC 4X2-IN OR IC QUAD 2-INPUT OR GATE	BL 1012.9385.00	HARRIS	CD74ACT32M	
D5	BC CY7C136-S 2PORTL SRAM IC MEMORY	1050.0781.00	CYPRESS	CY7C136-55JI	
D6	BC 29F400T512KX8 FL.EPROM FLASH-EPROM	0009.9917.00	SGS-THOMSO	M29F400T-90N1	
D7	BC 29F400T512KX8 FL.EPROM FLASH-EPROM	0009.9917.00	SGS-THOMSO	M29F400T-90N1	
D8	BL 74LVC74DB 2XD-FF IC DUAL D-TYPE FLIP FLOP	1104.2563.00	PHILIPS_SE	74LVC74(DB)	
D9	BJ MAX239CWG RS232 3TX5RX RS-232 TRANSCEIVER	1003.0908.00	MAXIM	MAX239CWG	
D10	BJ MAX239CWG RS232 3TX5RX RS-232 TRANSCEIVER	1003.0908.00	MAXIM	MAX239CWG	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
D11	BC SC26C92 DUAL UART DUAL UNI. ASYNCHRON. UART	6033.2800.00	PHILIPS_SE	SC26C92(A)C1A	
D12	BC TC551001FL 128KX8 SRAM STATIC RAM 128KX8	1046.3938.00	TOSHIBA	TC551001CF-70L	
D13	BC TC551001FL 128KX8 SRAM STATIC RAM 128KX8	1046.3938.00	TOSHIBA	TC551001CF-70L	
D14	BS DG419DY 1XUM ANALOGSCH ANALOG SWITCH NUR VAR/ONLY MOD: 02	0746.0322.00	SILICONIX	DG419DY	
D15	HS EPROM UNIV LINK HANDL. EPROM UNIV LINK HANDL.	1097.3641.00			
D16	BL 74ACT125SC 4XBUFFER 3S IC QUAD BUFFER 3-STATE	BL 2013.8620.00	NSC	74ACT125SC	
D17	BL 74LVT273DB 8XD-FF 3.3V OCTAL D FLIP-FLOP	1100.4284.00	PHILIPS_SE	(74)LVT273(DB)	
D18	BL 74ACT245SC 8XBUSTRANSC IC OCTAL BUS-TRANSC 3-ST	BL 0008.0739.00	HARRIS	CD74ACT245M	
D19	BC XC4010E-4C 10K GAT LCA IC LOGIC CELL ARRAY	1075.4122.00	XILINX	XC4010E-5PQ208C	
D20 ..22	BL 74ACT245SC 8XBUSTRANSC IC OCTAL BUS-TRANSC 3-ST	BL 0008.0739.00	HARRIS	CD74ACT245M	
D23	BL PC74HCT245T 8XTRANSC OCTAL BUS TRANSCEIVER	BL 0007.5414.00	PHILIPS_SE	(PC)74HCT245(D/T)	
D24	BL 74ACT245SC 8XBUSTRANSC IC OCTAL BUS-TRANSC 3-ST	BL 0008.0739.00	HARRIS	CD74ACT245M	
D25	BC ISPGAL22V10C-7LJ GAL IC PROGR LOGIC DEVICE	1097.6570.00	LATTICE	ISPGAL22V10C-7LJ	
D26	BL 74AHC1G04DBVR SINGLE/INVERTER GATE NUR VAR/ONLY MOD: 04	1100.4710.00	TEXAS_INST	(SN74)AHC1G04(DBVR)	
D28	BL 74ACT253SC 4CH MUX 3ST 4 CHANNEL MUX WITH 3ST	BL 1030.8741.00	HARRIS	CD74ACT253M	
D29	BC X24C16S14 2KX8 EEPROM SERIAL EEPROM	1028.8190.00	XICOR	X24C16S(14)	
D30	BO LT1117CSTLOWDROP+VREGL VOLTAGE REGULATOR	1036.4283.00	LINEAR_TEC	LT1117(CST)	
D31	BL 74ACT139SC 2X 1A4DEMUX IC DUAL 1-OF-4 DEMUX	BL 2000.2412.00	HARRIS	CD74ACT139M	
D32	BC MC68331CPV20 32B MCU IC 32BIT MICROCONTROLLER	1097.6257.00	MOTOROLA	MC68331CPV20	
D33 ..36	BL 74LVC157DB 4X2IN MUX IC QUAD 2-IN MULTIPLEXER	0048.3245.00	PHILIPS_SE	(74)LVC157A(DB)	
D37	BC EPM7128SQC100-7 EPLD IC PROG. LOGIC	1097.6240.00	ALTERA	EPM7128SQC100-7	
D38	BC IDT7024S15 2PORT SRAM 5V 4KX16 DUAL-PORT SRAM	1097.6228.00	IDT	IDT7024S15PF	
D39	BC XC4003EUPQ100C IC LOGIC CELL ARRAY	1100.4749.00	XILINX	XC4003E-4PQ100C	
D40	BL 74ACT574SC 8XD-FF 3S OCTAL D FLIP-FLOP 3ST	BL 0008.2225.00	HARRIS	CD74ACT574M	
D41	BL 74ACT541SC 8XBUF/DR 3S 8XBUFFER/LINEDRIV 3-ST	BL 1006.4033.00	HARRIS	CD74ACT541M	
D42	BL 74ACT245SC 8XBUSTRANSC IC OCTAL BUS-TRANSC 3-ST	BL 0008.0739.00	HARRIS	CD74ACT245M	
D43	BC IDT72225LB 1KX18 FIFO IC FIFO MEMORY	1097.6140.00	IDT	(IDT)72225LB15PF	
D60	BL 74ACT157SC 4X 2-IN MUX QUAD 2-INP MULTIPLEXER	BL 1012.9410.00	HARRIS	(CD74)ACT157(M)	
D61	BL 74ACT125SC 4XBUFFER 3S IC QUAD BUFFER 3-STATE	BL 2013.8620.00	NSC	74ACT125SC	
D62	BL 74ACT125SC 4XBUFFER 3S IC QUAD BUFFER 3-STATE	BL 2013.8620.00	NSC	74ACT125SC	
D70	BL 74ACT04SC 6X INVERTER IC HEX INVERTER	BL 1012.9379.00	HARRIS	(CD74)ACT04(M)	
D71	BL 74LVT273DB 8XD-FF 3.3V OCTAL D FLIP-FLOP	1100.4284.00	PHILIPS_SE	(74)LVT273(DB)	
D72	BL 74LVC138DB 3TO8 DEC LINE DECODER	1104.2592.00	PHILIPS_SE	74LVC138(DB)	
D73	BL 74LVT32DB 4X2OR 3.3V QUAD 2-INPUT OR GATE	0048.3216.00	PHILIPS_SE	74LVT32DB	
D74	BL 74LVC08ADB 4 AND 2IN IC 74LVC08ADB	4052.5609.00	PHILIPS_SE	74LVC08(ADB)	
D80	BL 74AHC1G14DBV SINGLE SCHMITT TRIG GATE	1100.4884.00	TEXAS_INST	SN74AHC1G14DBV(R)	
D81	BL 74LVT14DB 6XINV.SCHM 3.3V 6-INV SCHMITT-TRIGG.	0048.4335.00	PHILIPS_SE	(74)LVT14(DB)	
D82	BL 74LVC244ADB 2X4 BUF/DR IC 74LVC244ADB	4052.5309.00	PHILIPS_SE	74LVC244A(DB)	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
D83	BL 74LVC244ADB 2X4 BUF/DR IC 74LVC244ADB	4052.5309.00	PHILIPS_SE	74LVC244A(DB)	
D143	BL 74LVT14DB 6XINV.SCHM 3.3V 6-INV SCHMITT-TRIGG.	0048.4335.00	PHILIPS_SE	(74)LVT14(DB)	
D410	BL 74LVTO4DB 6XINV. 3.3V HEX INVERTER	0048.3174.00	PHILIPS_SE	74LVTO4DB	
D420	BL 74LVTO8DB 4X2AND 3.3V QUAD 2-IN AND GATE	0048.3180.00	PHILIPS_SE	74LVTO8(DB)	
D421	BL 74LVT16244BDL 16XBUFF OCTAL BUFFER	0048.3322.00	PHILIPS_SE	(74)LVT16244B(DL)	
D422	BL 74LVT244ADB 8XBUFF 3S 3.3V OCTAL BUFFER 3-STATE	0048.3251.00	PHILIPS_SE	(74)LVT244A(DB)	
D423	BL 74LVT16245BDL 16XTX 3S 3.3V 16BIT TRANSCEIVER 3S	0048.3339.00	PHILIPS_SE	74LVT16245B(DL)	
D424	BL 74LVT245DB 8XTRANS 3S OCTAL TRANSCEIVER 3-STATE	0048.3274.00	PHILIPS_SE	74LVT245(DB)	
D460	BL 74LVT16374A 16XD-FF 3S 16BIT D-TYPE FLIP-FLOP	0048.4093.00	PHILIPS_SE	(74)LVT16374A(DL)	
D461	BL 74LVC273DB 8XD-FF IC 74LVC273DB	4052.5621.00	PHILIPS_SE	74LVC273(DB)	
D462	BL 74LVT16373A 16XD-LATCH 3.3V 16BIT TRANSP D-LATCH	0048.4087.00	PHILIPS_SE	(74)LVT16373A(DL)	
D463	BL 74LVT573DB 8XD-LATCH 3.3V OCTAL D-TYPE LATCH	0048.4070.00	PHILIPS_SE	(74)LVT573(DB)	
G1	EO 3,6864MHZ QUARZOSZ QUARTZ CRYSTAL OSZILLATOR	1097.6540.00	SEIKO	SG-615P	
G410	EO 66,000MHZ QUARZOSZ QUARTZ CRYSTAL UNIT	1097.6234.00	SEIKO	SG-615PH-C 66,000MHZ	
H1	AF LSS269BO SUPERROT LED LED	0009.8356.00	SIEMENS	LS S269-BO(-Q1566)	
H2	AF LGS269BO GRUEN LED LED	0009.8362.00	SIEMENS	LG S269-BO (Q157O)	
L1	LD 1,8UH 10% 0,29A 1210 SMD-INDUCTOR NUR VAR/ONLY MOD: 04	0008.8998.00	SIEMENS	B82422-A1182-J(K)100	
L2	LD 68ONH 10% 0,14A 1210 CHIP COIL	LD 0690.9195.00	SIEMENS	B82422-A3681-J(K)100	
L3	LD 22ONH 10% 0,28A 1210 SMD-INDUCTOR	LD 0520.7911.00	SIEMENS	B82422-A3221-J(K)100	
L4 ..7	LD 10UH 10% 0,18A 1210 SMD-INDUCTOR	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
N1	BO OPO7CS8 OPAMP OPERATIONAL AMPLIFIER	0007.7781.00	LINEAR_TEC	LT1001(CS8)	
N30	BO UCC283TD-ADJ LD-VREGL LOW DROPOUT LIN REGULATOR	1097.6663.00	UNITRODE	UCC283TD-ADJ	
N410	BO TLO72ACD 2XFET OPAMP OPERATIONAL AMPLIFIER	0803.1057.00	TEXAS	TL 072 ACDR	
R1	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R2	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R3	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R4	RG 392R+-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0010.9300.00	DRALORIC	CR 0603	
R5	RG 10MOHM+-10%TK200 1206 CHIP RESISTOR	0815.7549.00	VALVO	RC 01	
R6 ..8	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R9	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R10 ..32	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R33	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R34	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R35	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R36	RG 56R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.9646.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R37	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R38	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R39	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R40	RG 18K2+-1% TK200 0603 SMD-RESISTOR EIA0603	0010.9317.00	DRALORIC	CR 0603	
R41	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R42	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R43	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R44	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R45	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R46	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R47	RG 330K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7114.00	DRALORIC	CR 0603	
R48 ..57	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R58	RG 243R +-1% TK200 0603 SMD-REGISTER	0010.9800.00	DRALORIC	CR 0603	
R59	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R60	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R61 ..68	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R69	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R70	RG 56R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.9646.00	DRALORIC	CR 0603	
R71	RG 56R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.9646.00	DRALORIC	CR 0603	
R72	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R73	RG 56R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.9646.00	DRALORIC	CR 0603	
R74	RG 3K3 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7014.00	DRALORIC	CR 0603	
R75	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R76	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R77	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	RG 0009.5357.00	DRALORIC	CR 0603	
R78	RG 3K3 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7014.00	DRALORIC	CR 0603	
R79	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R80	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R81	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R82	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R83	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R84	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	RG 0009.5340.00	DRALORIC	CR 0603	
R85	RG 3K3 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7014.00	DRALORIC	CR 0603	
R86	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R87	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R88	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R89	RG 3K3 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7014.00	DRALORIC	CR 0603	
R90	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R91	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.7020.00	DRALORIC	CR 0603	
R92	RG 1K5 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6999.00	DRALORIC	CR 0603	
R93	RG 20K +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.9100.00	DRALORIC	CR 0603	
R94	RG 1K5 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6999.00	DRALORIC	CR 0603	
R95	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R96	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R97	RG 220R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6953.00	DRALORIC	CR 0603	
R98	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R99	RG 3K3 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7014.00	DRALORIC	CR 0603	
R100	RG 3K3 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7014.00	DRALORIC	CR 0603	
R101	RG 3K3 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7014.00	DRALORIC	CR 0603	
R102	RG 3K3 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7014.00	DRALORIC	CR 0603	
R103 ..129	RG 470R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R130	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R131 ..133	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R134 ..138	RG 470R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R139	RG 22R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6901.00	DRALORIC	CR 0603	
R140	RG 22R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6901.00	DRALORIC	CR 0603	
R141 ..145	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R146 ..148	RG 2K2 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7008.00	DRALORIC	CR 0603	
R149 ..155	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R156	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R157	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R158	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R159	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R160	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R161	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R162	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R163	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R164	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R165 ..194	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R195	RG 68R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6930.00	DRALORIC	CR 0603	
R196	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R197	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R198	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R199	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R200	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R201	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R202	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R203	RG 10R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5328.00	DRALORIC	CR 0603	
R204	RG 0-OHM WIDERSTAND O-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R205	RG 0-OHM WIDERSTAND O-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R206	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R207	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R208	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R209	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R210 ..212	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R213	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R214	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R215	RG 10R +-1% TK200 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0603	RG 0009.5328.00	DRALORIC	CR 0603	
R216	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R217	RG 511R +-1%TK200 SMD RESISTOR	0603	1097.6470.00	DRALORIC	CR 0603	
R218	RG 2K2 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R219	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R220 ..223	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R224	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R225	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R226	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R227	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R228	RG 56R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.9646.00	DRALORIC	CR 0603	
R229	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R230 ..234	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R235	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R236	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R237	RG 2K2 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R238	RG 2K2 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R239 ..242	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R243	RG 10R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5328.00	DRALORIC	CR 0603	
R244	RG 0-OHM WIDERSTAND O-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R245	RG 10R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5328.00	DRALORIC	CR 0603	
R246	RG 10R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5328.00	DRALORIC	CR 0603	
R247	RG 10R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5328.00	DRALORIC	CR 0603	
R248	RG 10R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5328.00	DRALORIC	CR 0603	
R249	RG 10R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5328.00	DRALORIC	CR 0603	
R250 ..253	RG 10R +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5328.00	DRALORIC	CR 0603	
R254	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R255	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R256 ..258	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R259	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R260	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R261 ..264	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R265	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R266	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R267	RG O-OHM WIDERSTAND O-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R268	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R269	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R270 ..272	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R273 ..275	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R276	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R277 ..279	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R280	RG 10K +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5357.00	DRALORIC	CR 0603	
R281	RG 2KO +-1% TK200 SMD RESISTOR	0603	1097.6328.00	DRALORIC	CR 0603	
R282	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R283 ..286	RG O-OHM WIDERSTAND O-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R287 ..289	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R290	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R291	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R292	RG 33R +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.6918.00	DRALORIC	CR 0603	
R293	RG O-OHM WIDERSTAND O-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R294	RG O-OHM WIDERSTAND O-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R295	RG 511R +-1%TK200 SMD RESISTOR	0603	1097.6470.00	DRALORIC	CR 0603	
R296	RG 511R +-1%TK200 SMD RESISTOR	0603	1097.6470.00	DRALORIC	CR 0603	
R297	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R298	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R299 ..302	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R303	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R304	RG 1KO +-1% TK200 SMD-RESISTOR EIA0603	0603	RG 0009.5340.00	DRALORIC	CR 0603	
R305	RG 4K7 +-1% TK200 SMD-RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R306	RG O-OHM WIDERSTAND O-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R307	RG O-OHM WIDERSTAND O-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R308	RG O-OHM WIDERSTAND O-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R309	RG O-OHM WIDERSTAND O-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R310	RG O-OHM WIDERSTAND O-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R311	RG O-OHM WIDERSTAND O-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R312	RG O-OHM WIDERSTAND O-OHM RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R313	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R314	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R315	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R316	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R317	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R318	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R319 ..323	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R324	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R325	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R326 ..333	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R334	RG 3K3 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7014.00	DRALORIC	CR 0603	
R335	RG 2K74 +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.8410.00	DRALORIC	CR 0603	
R336	RG 1K62 +-1% TK200 0603 SMD RESISTOR	0048.6038.00	DRALORIC	CR 0603	
R337	RG 560R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.9630.00	DRALORIC	CR 0603	
R338	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R339	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R340	RG 3KO1+-1% TK200 0603 SMD-RESISTOR EIA0603	0010.9298.00	DRALORIC	CR 0603	
R341	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R342	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R343 ..345	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R346	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R347	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R348	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R349	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R350 ..352	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R353	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R354	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R355	RG 330R +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.6960.00	DRALORIC	CR 0603	
R356	RN 10K X4 5% SMD1206 RESISTOR NETWORK	0048.4441.00	PHILIPS_CO	2350 034 10103	
R357 ..362	RN 56R X4 5% SMD1206 RESISTOR NETWORK	1100.4384.00	PHILIPS_CO	2350 034 10569	
R363	RG 56R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.9646.00	DRALORIC	CR 0603	
R364	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R365	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R366	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R367	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R368	RG 47R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6924.00	DRALORIC	CR 0603	
R400	RG 56R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.9646.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R450	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
S1	SK CODIERSCH..2P.2XEIN DIP-SWITCH	1081.0190.00	C&K	DMR-02-T(R)	
S2	SK CODIERSCH..2P.2XEIN DIP-SWITCH	1081.0190.00	C&K	DMR-02-T(R)	
S3	SK CODIERSCH..2P.2XEIN DIP-SWITCH	1081.0190.00	C&K	DMR-02-T(R)	
U1	BJ LM45C TEMP. SENSOR PRECISION TEMP. SENSOR NUR VAR/ONLY MOD: 02	1081.1796.00	NSC	LM45CIM3	
V1 ..9	AG SS24 SGL 40V 2AO SCHOTTKY RECTIFIER	1081.1880.00	GEN_INSTRU	SS24	
V10	AD BAS216 75V UDI HIGHSPEED SWITCHING DIODE	0010.9346.00	PHILIPS_SE	BAS216	
V11 ..15	AK BFR193 N 12V 80MA TRANSISTOR	6024.2718.00	SIEMENS	BFR193 (-F1218)	
V16	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
V18 ..26	AK BFR193 N 12V 80MA TRANSISTOR	6024.2718.00	SIEMENS	BFR193 (-F1218)	
X1	FJ EINLOETBUCHSE MMCX SMD CONNECTOR	1075.4045.00	SUHNER	82MMCX-S50-0-51/1110	
X2	FJ EINLOETBUCHSE MMCX SMD CONNECTOR	1075.4045.00	SUHNER	82MMCX-S50-0-51/1110	
X3	FJ EINLOETBUCHSE MMCX SMD CONNECTOR	1075.4045.00	SUHNER	82MMCX-S50-0-51/1110	
X4	FJ EINLOETBUCHSE MMCX SMD CONNECTOR	1075.4045.00	SUHNER	82MMCX-S50-0-51/1110	
X41	FP STECKERLEISTE 96POL. CONNECTOR 96P.	FP 0008.5753.00	SIEMENS	V42254-B1200-C910	
X42	FP STECKERLEISTE 96POL. CONNECTOR 96P.	FP 0008.5753.00	SIEMENS	V42254-B1200-C910	
X43	FP STECKERLEISTE 10P.SMD CONNECTOR	1100.4455.00	SPEED_TECH	H762-9103-106 UNGEGU	
X44	FP STIFTLEISTE 7P. SMD CONNECTOR	FP 1081.2386.00	SUYIN	20011A-07G2T	
X45	FP STECKERLEISTE 10POL. FP CONNECTOR10P	FP 6040.4611.00			
X46	FP STECKERLEISTE 10POL. FP CONNECTOR10P	FP 6040.4611.00			
X47	FJ EINLOETBUCHSE MMCX CONNECTOR	1085.1532.00	SUHNER	82MMCXS50-0-2/111KG	
X70	FP STIFTLEISTE 34P. SMD CONNECTOR	1100.4503.00	SPEED_TECH	H762-9708-346 UNGEGU	
X71	FP STIFTLEISTE 22P.SMD CONNCETOR	1100.4510.00	SPEED_TECH	H762-9708-226 UNGEGU	
X72	FP STIFTLEISTE 10P. SMD CONNECTOR	1100.3536.00	SPEED_TECH	H762-9708-106 UNGEGU	
X73	FP STIFTLEISTE 10P. SMD CONNECTOR	1100.3536.00	SPEED_TECH	H762-9708-106 UNGEGU	
X410	FP STIFTLEISTE 34P. SMD CONNECTOR	1100.4503.00	SPEED_TECH	H762-9708-346 UNGEGU	
X411	FP STIFTLEISTE 34P. SMD CONNECTOR	1100.4503.00	SPEED_TECH	H762-9708-346 UNGEGU	
X420	FP STIFTLEISTE 22P.SMD CONNCETOR	1100.4510.00	SPEED_TECH	H762-9708-226 UNGEGU	
X421	FP STIFTLEISTE 22P.SMD CONNCETOR	1100.4510.00	SPEED_TECH	H762-9708-226 UNGEGU	
X422	FP STIFTLEISTE 30P. SMD CONNECTOR	1100.3520.00	SPEED_TECH	H762-9708-306 EINZEL	
X423	FP STIFTLEISTE 22P.SMD CONNCETOR	1100.4510.00	SPEED_TECH	H762-9708-226 UNGEGU	
X430	FP STIFTLEISTE 34P. SMD CONNECTOR	1100.4503.00	SPEED_TECH	H762-9708-346 UNGEGU	
X431	FP STIFTLEISTE 50P. SMD CONNECTOR	1100.4490.00	SPEED_TECH	H762-9708-506 UNGEGU	
X432	FP STIFTLEISTE 34P. SMD CONNECTOR	1100.4503.00	SPEED_TECH	H762-9708-346 UNGEGU	
X441	FP STIFTLEISTE 50P. SMD CONNECTOR	1100.4490.00	SPEED_TECH	H762-9708-506 UNGEGU	
X442	FP STIFTLEISTE 50P. SMD CONNECTOR	1100.4490.00	SPEED_TECH	H762-9708-506 UNGEGU	

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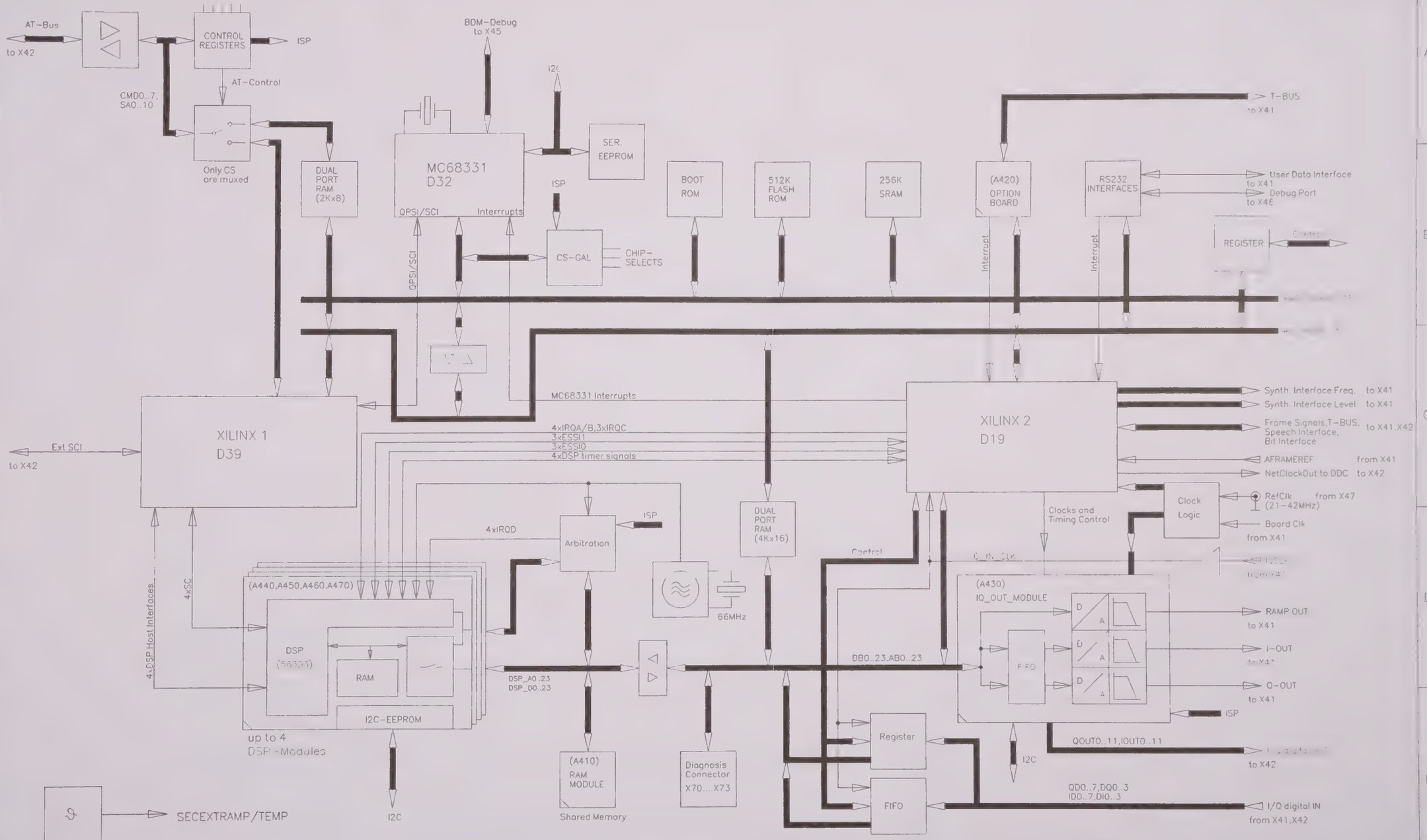
Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
X443	FP STIFTLEISTE 22P.SMD CONNCETOR	1100.4510.00	SPEED_TECH	H762-9708-226 UNGEGU	
X444	FP STIFTLEISTE 22P.SMD CONNCETOR	1100.4510.00	SPEED_TECH	H762-9708-226 UNGEGU	
X451	FP STIFTLEISTE 50P. SMD CONNECTOR	1100.4490.00	SPEED_TECH	H762-9708-506 UNGEGU	
X452	FP STIFTLEISTE 50P. SMD CONNECTOR	1100.4490.00	SPEED_TECH	H762-9708-506 UNGEGU	
X453	FP STIFTLEISTE 22P.SMD CONNCETOR	1100.4510.00	SPEED_TECH	H762-9708-226 UNGEGU	
X454	FP STIFTLEISTE 22P.SMD CONNCETOR	1100.4510.00	SPEED_TECH	H762-9708-226 UNGEGU	
X461	FP STIFTLEISTE 50P. SMD CONNECTOR	1100.4490.00	SPEED_TECH	H762-9708-506 UNGEGU	
X462	FP STIFTLEISTE 50P. SMD CONNECTOR	1100.4490.00	SPEED_TECH	H762-9708-506 UNGEGU	
X463	FP STIFTLEISTE 22P.SMD CONNCETOR	1100.4510.00	SPEED_TECH	H762-9708-226 UNGEGU	
X464	FP STIFTLEISTE 22P.SMD CONNCETOR	1100.4510.00	SPEED_TECH	H762-9708-226 UNGEGU	
X471	FP STIFTLEISTE 50P. SMD CONNECTOR	1100.4490.00	SPEED_TECH	H762-9708-506 UNGEGU	
X472	FP STIFTLEISTE 50P. SMD CONNECTOR	1100.4490.00	SPEED_TECH	H762-9708-506 UNGEGU	
X473	FP STIFTLEISTE 22P.SMD CONNCETOR	1100.4510.00	SPEED_TECH	H762-9708-226 UNGEGU	
X474	FP STIFTLEISTE 22P.SMD CONNCETOR	1100.4510.00	SPEED_TECH	H762-9708-226 UNGEGU	
Z1	LD PI-FILTER 10GHZ SMD SMD-FILTER	LD 0008.5901.00	OXLEY	SLT/P/22000/SM3	

Für diese Unterlage behalten wir uns alle Rechte vor.



ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

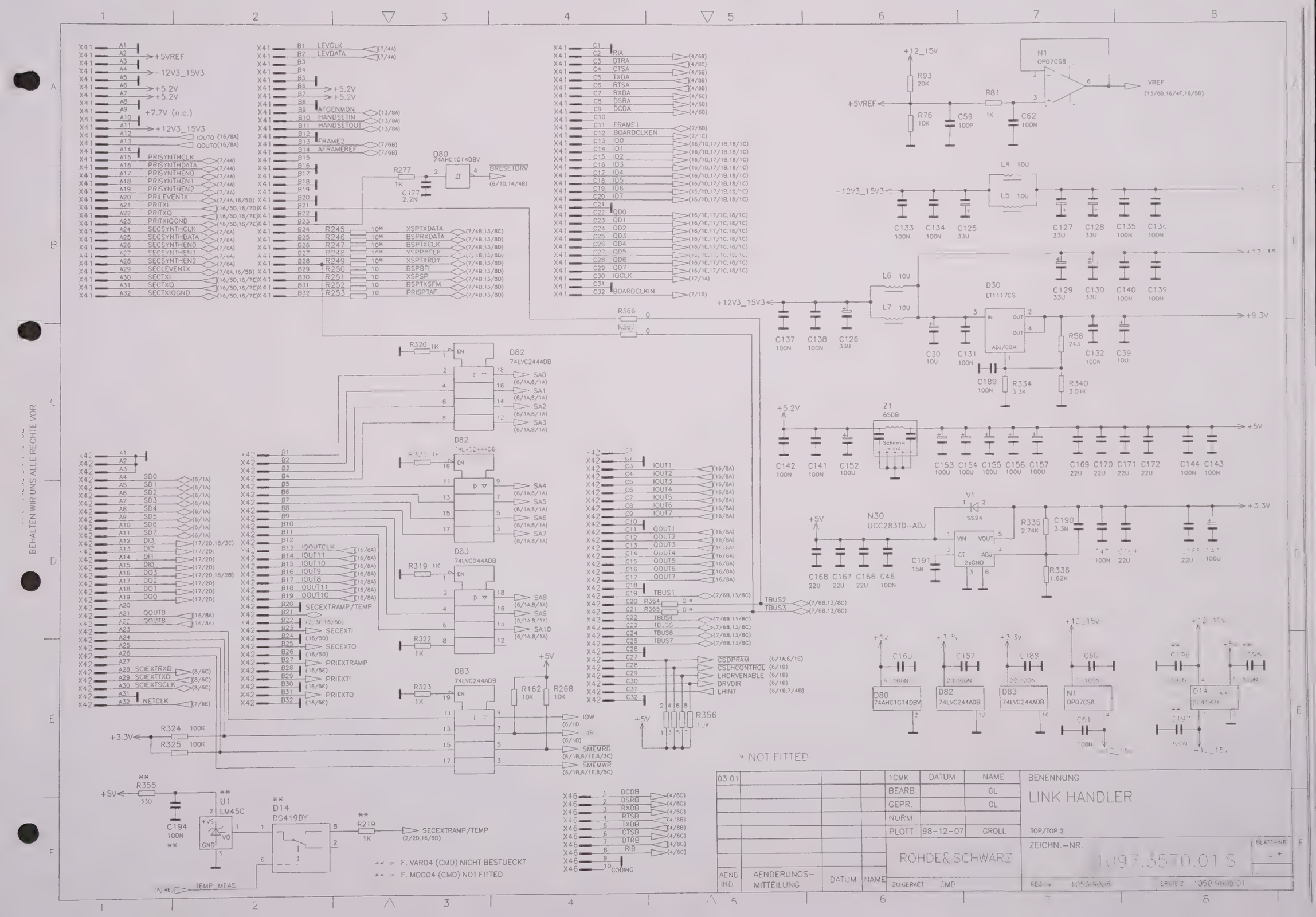
Bindende Angaben ueber Varianten, Trimmwerte, Bauteile und nicht bestueckte Bauteile siehe SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST

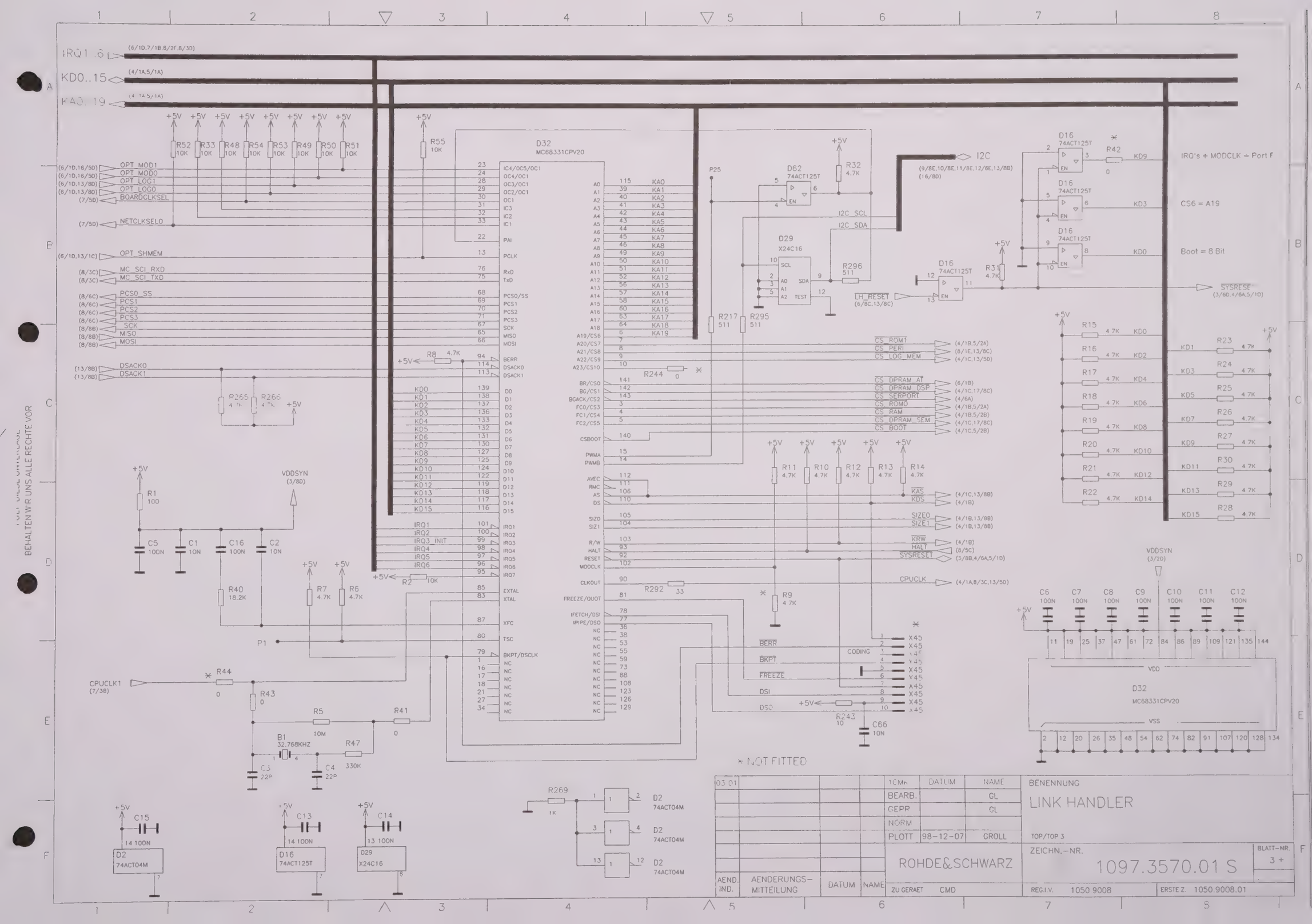
: plug-in-boards

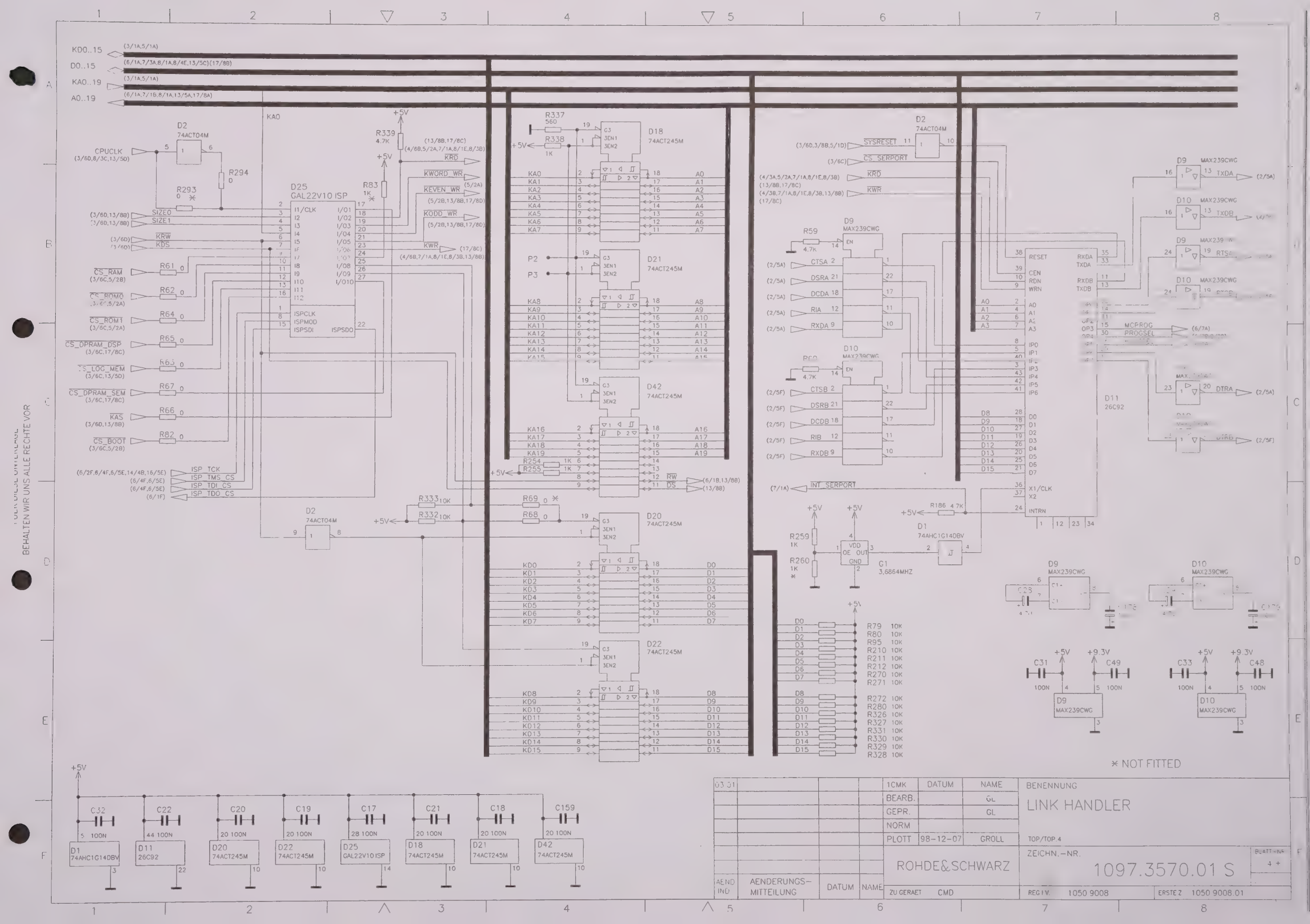
03.01				1CMK	DATUM	NAME	BENENNUNG
				BEARB.		GL	LINK HANDLER
				GEPR.		GL	
				NORM			
				PLOTT	98-12-07	GROLL	TOP/TOP.1
				ROHDE&SCHWARZ			ZEICHN.-NR. 1097.3570.01 S
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET CMD			REG I.V. 1050 9008 ERSTE Z. 1050.9008.01

BEHALTEN WIR UNS ALLE RECHTE VOR



BEHALTEN WIR UNS ALLE RECHTE VOR
+5VREF
-12V3_15V3
+5.2V
+7.7V (n.c.)
+12V3_15V3
IOUT0
QOUT0
PRISYNTHCLK
PRISYNTHDATA
PRISYNTHEN0
PRISYNTHEN1
PRISYNTHEN2
PRILEVENTX
PRITXI
PRITXQ
PRITXIQGND
SECSYNTHCLK
SECSYNTHDATA
SECSYNTHEN0
SECSYNTHEN1
SECSYNTHEN2
SECLEVENTX
SECTXI
SECTXQ
SECTXIQGND
LEVCLK
LEVDATA
AFGENMON
HANDSETIN
HANDSETOUT
FRAME2
AFRAMEREF
D80
74AHC1G14DBV
BRESETDRV
XSPTXDATA
BSPRXDATA
BSPTXCLK
XSPRXCLK
XSPTXRDY
BSPBFI
XSPSP
BSPTXSFM
PRISPTAF
RIA
DTRA
CTSA
TXDA
RTSA
RXDA
DSRA
DCDA
FRAME1
BOARDCLKEN
ID0
ID1
ID2
ID3
ID4
ID5
ID6
ID7
QD0
QD1
QD2
QD3
QD4
QD5
QD6
QD7
IQCLK
BOARDCLKIN
D82
74LVC244ADB
D83
74LVC244ADB
SA0
SA1
SA2
SA3
SA4
SA5
SA6
SA7
SA8
SA9
SA10
SD0
SD1
SD2
SD3
SD4
SD5
SD6
SD7
DI3
DI2
DI1
DI0
DO3
DO2
DO1
DO0
QOUT9
QOUT8
SCIEXTRXD
SCIEXTTXD
SCIEXTSCLK
NETCLK
IOUT1
IOUT2
IOUT3
IOUT4
IOUT5
IOUT6
IOUT7
QOUT1
QOUT2
QOUT3
QOUT4
QOUT5
QOUT6
QOUT7
IOUTCLK
IOUT11
IOUT10
IOUT9
IOUT8
QOUT11
QOUT10
SECEXTRAMP/TEMP
SECEXTI
SECEXTQ
PRIEXTRAMP
PRIEXTI
PRIEXTQ
TBUS1
TBUS2
TBUS3
TBUS4
TBUS5
TBUS6
TBUS7
CSDPRAM
CSLHCONTROL
LHDRVENABLE
DRVDIR
LHINT
IOW
SMEMRD
SMEMWR
R324 100K
R325 100K
R355 330
C194 100N
U1
LM45C
D14
DG419DY
R219 1K
SECEXTRAMP/TEMP
TEMP_MEAS
DCDB
DSRB
RXDB
RTSB
TXDB
CTSB
DTRB
RIB
CODING
* NOT FITTED
** = F. VAR04 (CMD) NICHT BESTUECKT
** = F. MOD04 (CMD) NOT FITTED
+12_15V
R93 20K
R76 10K
C59 100P
R81 1K
C62 100N
N1
OP07CS8
VREF
L4 10U
L5 10U
C133 100N
C134 100N
C125 33U
C127 33U
C128 33U
C135 100N
C129 33U
C130 33U
C140 100N
C139 100N
L6 10U
L7 10U
D30
LT1117CS
+9.3V
C137 100N
C138 100N
C126 33U
C30 10U
C131 100N
R58 243
C132 100N
C39 10U
C189 100N
R334 3.3K
R340 3.01K
Z1
65DB
+5V
C142 100N
C141 100N
C152 100U
C153 100U
C154 100U
C155 100U
C156 100U
C157 100U
C169 22U
C170 22U
C171 22U
C172 22U
C144 100N
C143 100N
V1
SS24
+3.3V
N30
UCC283TD-ADJ
R335 2.74K
C190 3.3N
C191 15N
R336 1.62K
C168 22U
C167 22U
C166 22U
C46 100N
C160
C187
C188
C60
C61
D14
03.01
1CMK
DATUM
NAME
BEARB.
GL
GEPR.
GL
NORM
PLOTT
98-12-07
GROLL
BENENNUNG
LINK HANDLER
TOP/TOP.2
ZEICHN.-NR.
1097.3570.01 S
ROHDE&SCHWARZ
AEND IND
AENDERUNGS-MITTEILUNG
DATUM
NAME
ZU GERAET CMD

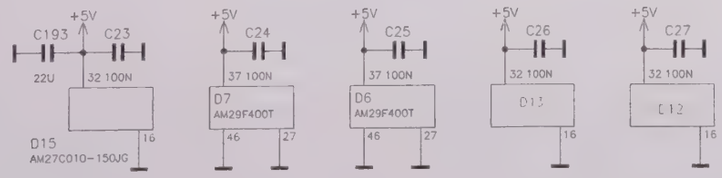

IRQ1..6
KD0..15
KA0..19
D32
MC68331CPV20
D62
74ACT125T
D29
X24C16
D16
74ACT125T
I2C
I2C_SCL
I2C_SDA
LH_RESET
SYSRESE
IRQ's + MODCLK = Port F
CS6 = A19
Boot = 8 Bit
OPT_MOD1
OPT_MOD0
OPT_LOG1
OPT_LOG0
BOARDCLKSEL
NETCLKSEL0
OPT_SHMEM
MC_SCI_RXD
MC_SCI_TXD
PCS0_SS
PCS1
PCS2
PCS3
SCK
MISO
MOSI
DSACK0
DSACK1
CS_ROM1
CS_PERI
CS_LOG_MEM
CS_DPRAM_AT
CS_DPRAM_DSP
CS_SERPORT
CS_ROM0
CS_RAM
CS_DPRAM_SEM
CS_BOOT
VDDSYN
CPUCLK
CPUCLK1
CODING
BERR
BKPT
FREEZE
DSI
DSO
B1
32.768KHZ
* NOT FITTED
BEARB.
GEPR
NORM
PLOTT
98-12-07
GROLL
LINK HANDLER
TOP/TOP 3
ROHDE&SCHWARZ
1097.3570.01 S
BLATT-NR.
3 +
ZU GERAET CMD
REG.I.V. 1050.9008
ERSTE Z. 1050.9008.01



03.31				1CMK	DATUM	NAME	BENENNUNG
				BEARB.		GL	LINK HANDLER
				GEPR.		GL	
				NORM			TOP/TOP.4
				PLOTT	98-12-07	GROLL	
				ROHDE&SCHWARZ			ZEICHN.-NR. 1097.3570.01 S
							BLATT-NR 4 +
AEND IND	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET CMD			REG.V. 1050 9008 ERSTE Z 1050 9008.01

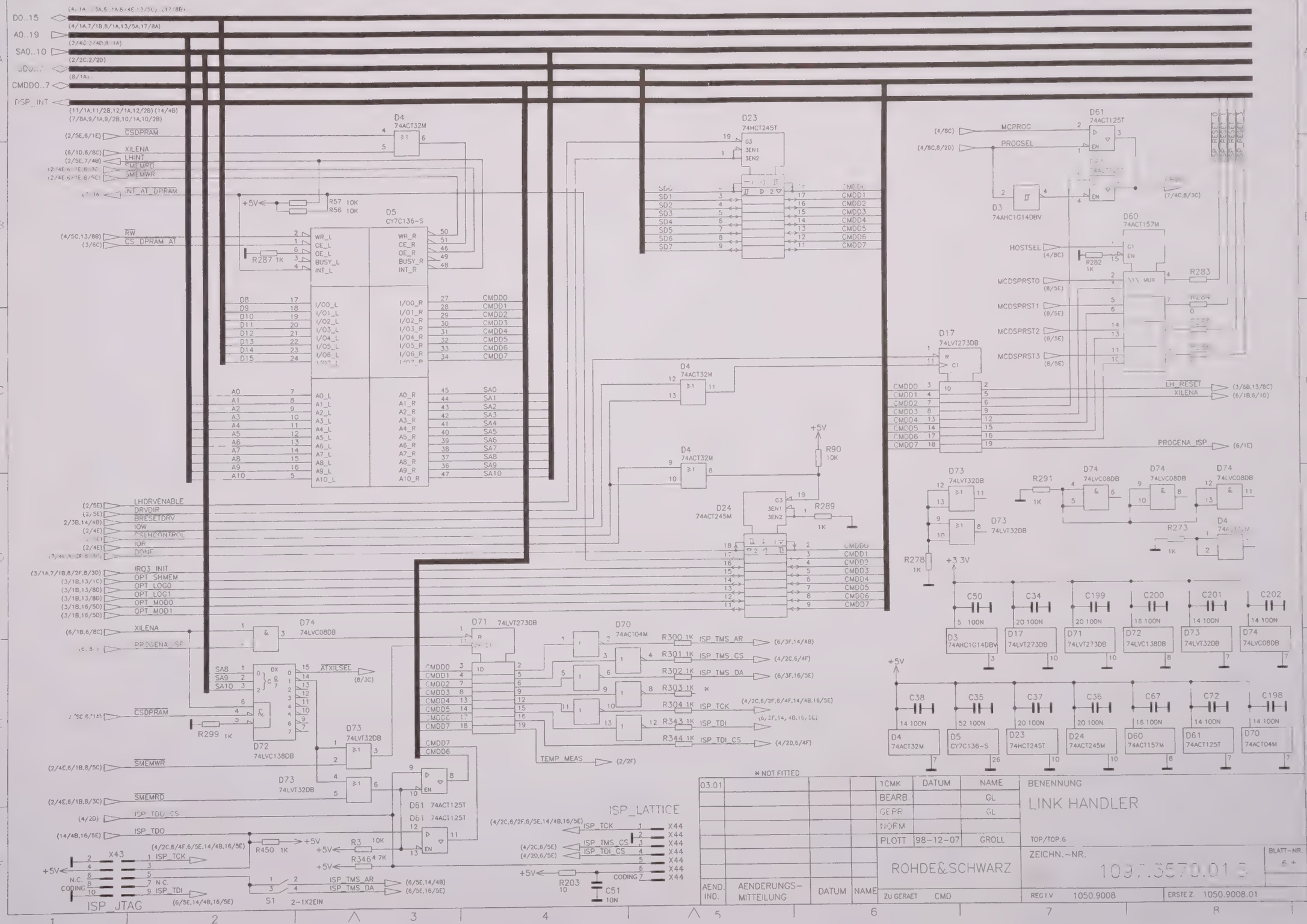
BEHALTEN WIR UNS ALLE RECHTE VOR

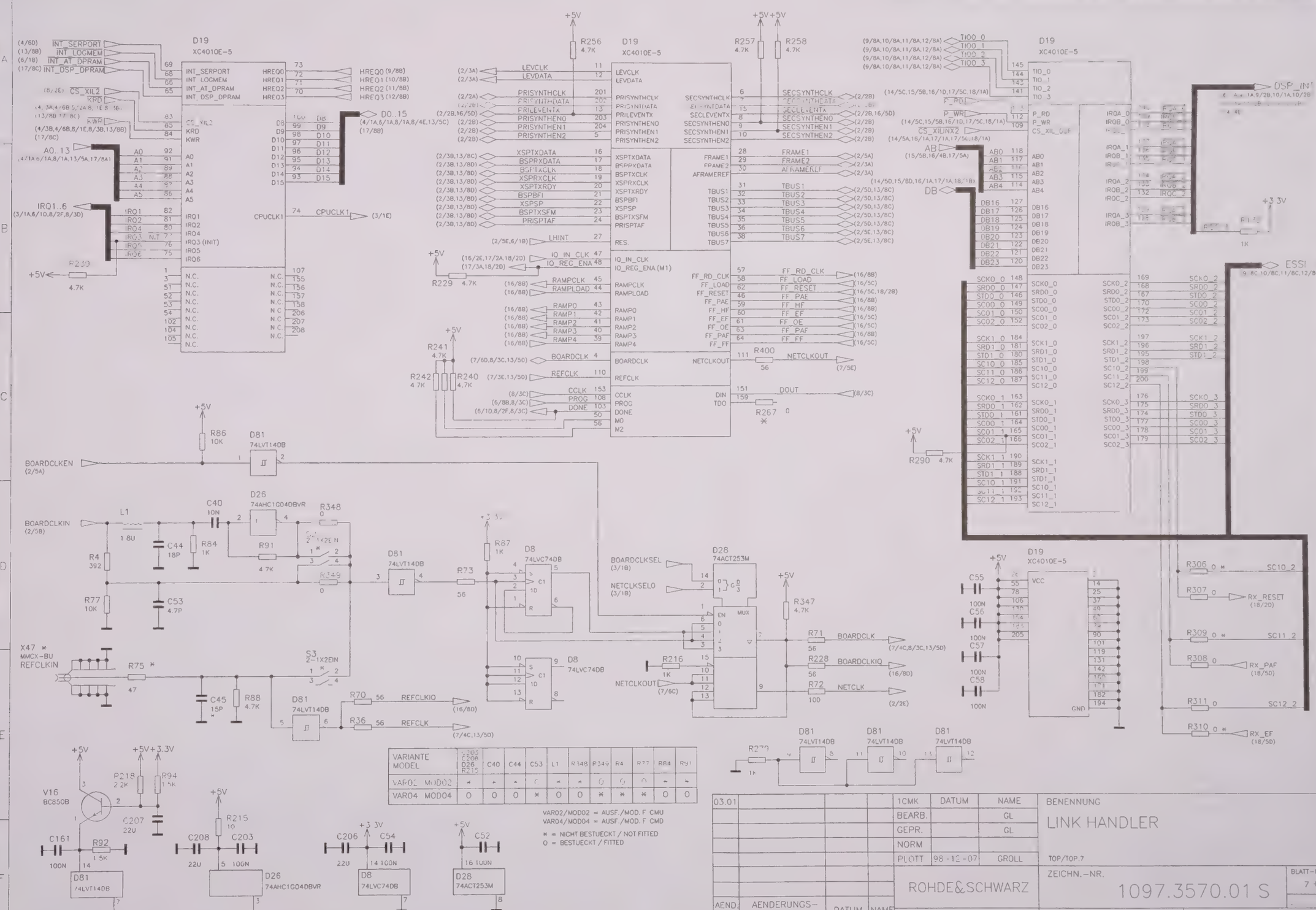
DIESE UNTERLAGE BEHALTEN WIR UNS ALLE RECHTE VOR

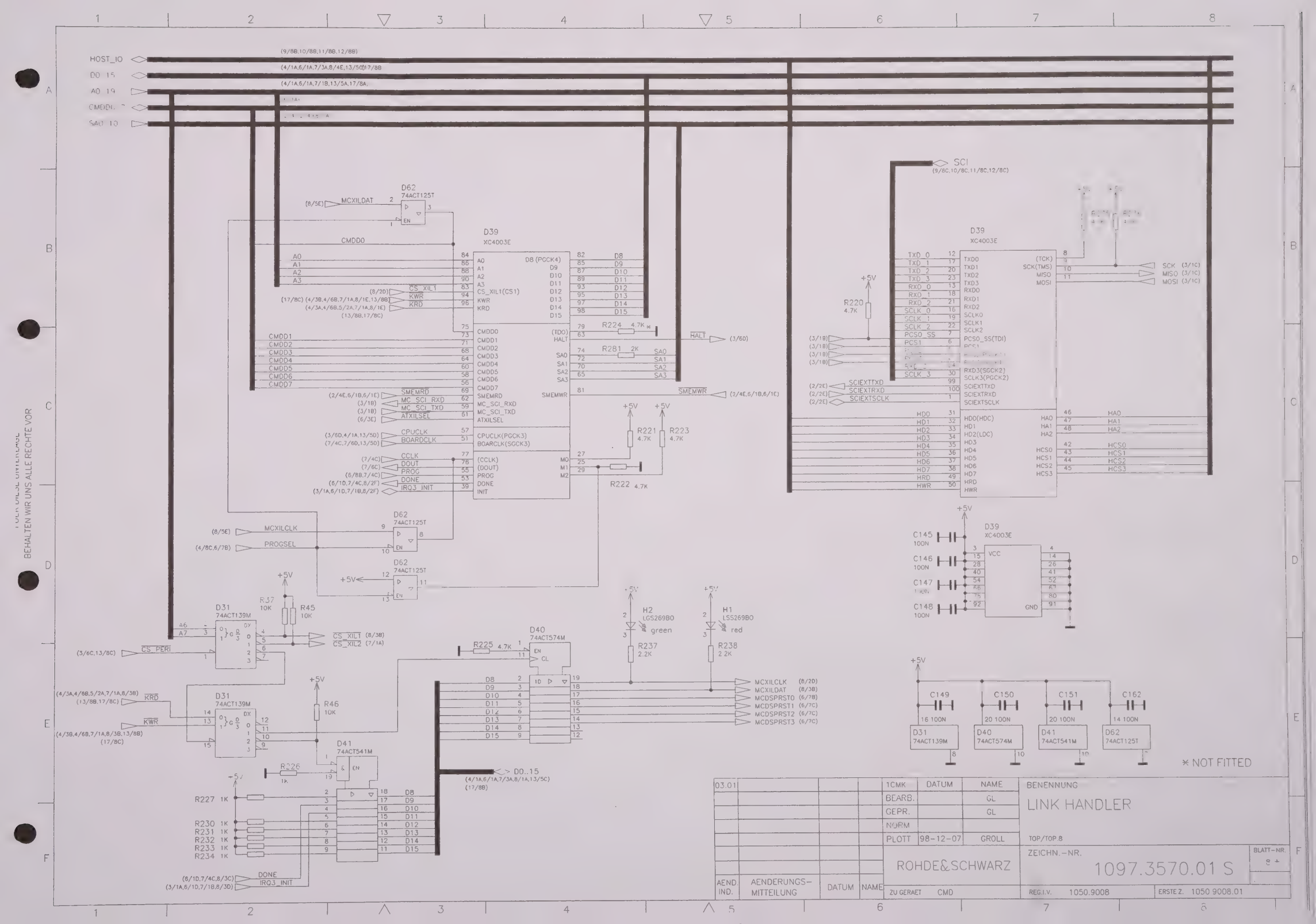


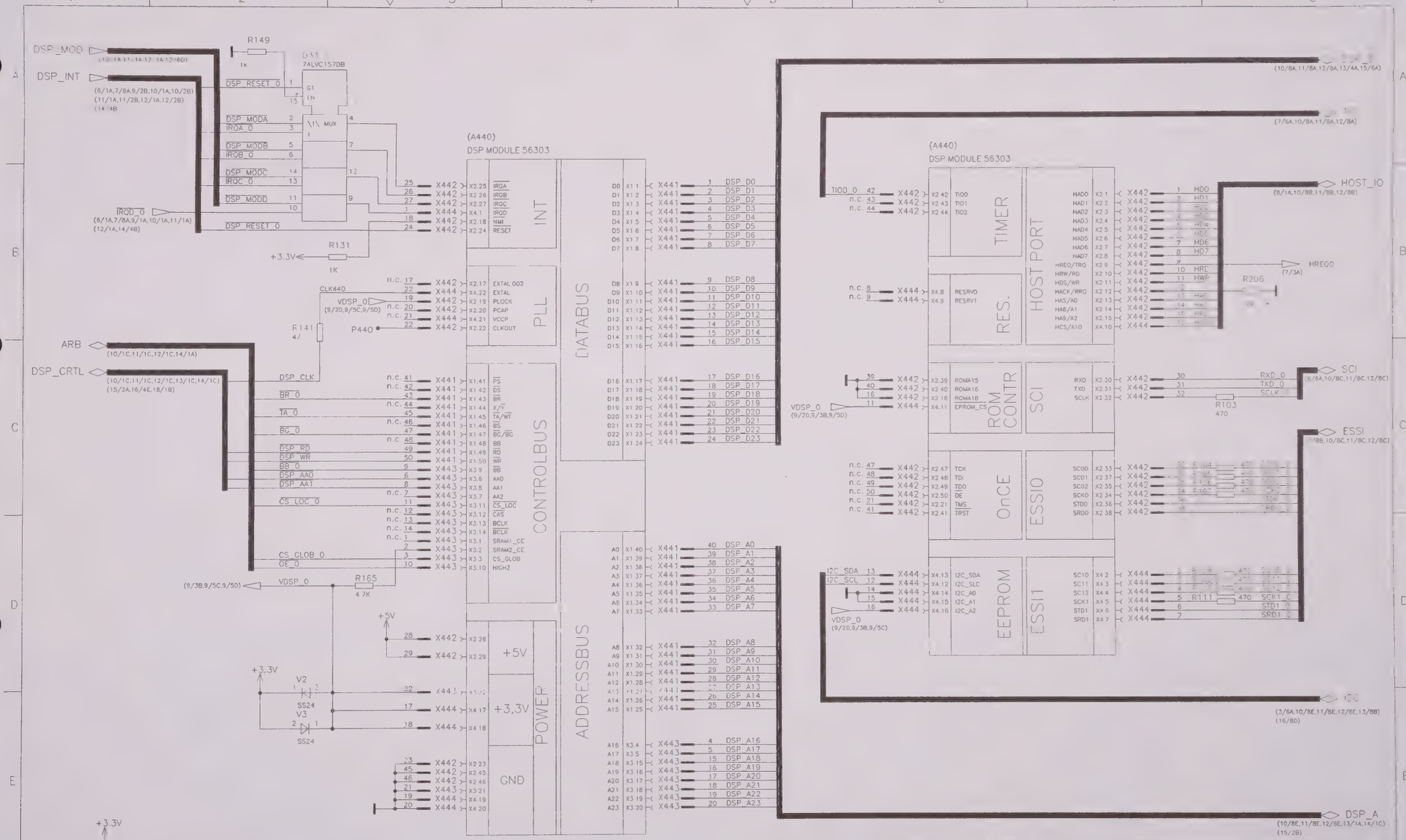
03.01				1CMK	DATUM	NAME	BENENNUNG
				BEARB.		GL	LINK HANDLER
				GEPR.		GL	
				NORM			TOP/TOP 5
				PLOTT	98-12-07	GROLL	
				ROHDE&SCHWARZ			ZEICHN.-NR. 1097.3570.01 S
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET CMD			REG.I.V. 1050.9008 ERSTE Z. 1050.9008.01

BLATT-NR 5 +


D0..15
A0..19
SA0..10
CMDD0..7
DSP_INT
CSDPRAM
XILENA
LHINT
SMEMRD
SMEMWR
INT_AT_DPRAM
RW
CS_DPRAM_AT
D4 74ACT32M
D5 CY7C136-S
R57 10K
R56 10K
R287 1K
D23 74HCT245T
D61 74ACT125T
D3 74AHC1G14DBV
D60 74ACT157M
HOSTSEL
MCDSPRST0
MCDSPRST1
MCDSPRST2
MCDSPRST3
D17 74LVT273DB
LH_RESET
PROGENA_ISP
D73 74LVT32DB
D74 74LVC08DB
R291 1K
R273 1K
R278 1K
+3.3V
+5V
R90 10K
D24 74ACT245M
R289 1K
LHDRVENABLE
DRVDIR
BRESETDRV
IOW
CSLHCONTROL
IOR
DONE
IRQ3_INIT
OPT_SHMEM
OPT_LOGO
OPT_LOG1
OPT_MODO
OPT_MOD1
D74 74LVC08DB
ATXILSEL
D72 74LVC138DB
R299 1K
D71 74LVT273DB
D70 74ACT04M
R300 1K ISP_TMS_AR
R301 1K ISP_TMS_CS
R302 1K ISP_TMS_DA
R303 1K *
R304 1K ISP_TCK
R343 1K ISP_TDI
R344 1K ISP_TDI_CS
TEMP_MEAS
C50 5 100N
C34 20 100N
C199 20 100N
C200 16 100N
C201 14 100N
C202 14 100N
C38 14 100N
C35 52 100N
C37 20 100N
C36 20 100N
C67 16 100N
C72 14 100N
C198 14 100N
ISP_JTAG
X43
ISP_TCK
ISP_TDO_ES
ISP_TDO
ISP_TDI
N.C.
CODING
S1 2-1X2EIN
ISP_TMS_AR
ISP_TMS_DA
R450 1K
R3 10K
R346 4.7K
ISP_LATTICE
R203 10
C51 10N
* NOT FITTED
BEHALTEN WIR UNS ALLE RECHTE VOR
ROHDE&SCHWARZ
BENENNUNG
LINK HANDLER
TOP/TOP.6
ZEICHN.-NR.
1097.3570.01
BLATT-NR. 6
ERSTE Z. 1050.9008.01
REG.I.V 1050.9008
ZU GERAET CMD
AENDERUNGS-MITTEILUNG
DATUM
NAME
03.01
1CMK
BEARB.
GEPR
NORM
PLOTT 98-12-07 GROLL


D19
XC4010E-5
INT_SERPORT
INT_LOGMEM
INT_AT_DPRAM
INT_DSP_DPRAM
CS_XIL2
KRD
KWR
A0..13
IRQ1..6
CPUCLK1
HREQ0 (9/8B)
HREQ1 (10/8B)
HREQ2 (11/8B)
HREQ3 (12/8B)
D0..15
R239 4.7K
+5V
LEVCLK
LEVDATA
PRISYNTHCLK
PRISYNTHDATA
PRILEVENTX
PRISYNTHEN0
PRISYNTHEN1
PRISYNTHEN2
SECSYNTHCLK
SECSYNTHDATA
SECLEVENTX
SECSYNTHEN0
SECSYNTHEN1
SECSYNTHEN2
XSPTXDATA
BSPRXDATA
BSPTXCLK
XSPRXCLK
XSPTXRDY
BSPBFI
XSPSP
BSPTXSFM
PRISPTAF
LHINT
IO_IN_CLK
IO_REG_ENA (M1)
RAMPCLK
RAMPLOAD
RAMP0
RAMP1
RAMP2
RAMP3
RAMP4
BOARDCLK
REFCLK
CCLK
PROG
DONE
M0
M2
FRAME1
FRAME2
AFRAMEREF
TBUS1
TBUS2
TBUS3
TBUS4
TBUS5
TBUS6
TBUS7
FF_RD_CLK
FF_LOAD
FF_RESET
FF_PAE
FF_HF
FF_EF
FF_OE
FF_PAF
FF_FF
NETCLKOUT
DOUT
DIN
TDO
R256 4.7K
R257 4.7K
R258 4.7K
R229 4.7K
R241 4.7K
R242 4.7K
R240 4.7K
R400 56
R267 0
TIO0_0
TIO0_1
TIO0_2
TIO0_3
P_RD
P_WR
CS_XILINX2
AB
DB
SCK0_0
SRD0_0
STD0_0
SC00_0
SC01_0
SC02_0
SCK1_0
SRD1_0
STD1_0
SC10_0
SC11_0
SC12_0
R290 4.7K
DSP_IN1
ESS1
+3.3V
1K
BOARDCLKEN
(2/5A)
R86 10K
D81
74LVT14DB
D26
74AHC1G04DBVR
BOARDCLKIN
(2/5B)
L1
1.8U
C40 10N
C44 18P
R84 1K
R348 0
R91 4.7K
R349 0
S3
2-1X2EIN
R4 392
R77 10K
C53 4.7P
R73 56
D8
74LVC74DB
R87 1K
X47 *
MMCX-BU
REFCLKIN
R75 *
47
C45 15P *
R88 4.7K
R70 56 REFCLKIQ (16/8D)
R36 56 REFCLK (7/4C,13/50)
BOARDCLKSEL
(3/1B)
NETCLKSEL0
(3/1B)
D28
74ACT253M
MUX
R347 4.7K
R71 56 BOARDCLK (7/4C,8/3C,13/50)
R228 56 BOARDCLKIQ (16/8D)
R72 100 NETCLK (2/2E)
R216 1K
NETCLKOUT (7/6C)
C55 100N
C56 100N
C57 100N
C58 100N
R306 0 * SC10_2
R307 0 RX_RESET (18/2D)
R309 0 * SC11_2
R308 0 RX_PAF (18/5D)
R311 0 SC12_2
R310 0 * RX_EF (18/5D)
R279 1K
V16
BC850B
R218 2.2K
R94 1.5K
C207 22U
C161 100N
R92 1.5K
C208 22U
R215 10
C203 5 100N
C206 22U
C54 14 100N
C52 16 100N
VARIANTE MODEL
VAR02 MOD02
VAR04 MOD04
VAR02/MOD02 = AUSF./MOD. F CMU
VAR04/MOD04 = AUSF./MOD. F CMD
* = NICHT BESTUECKT / NOT FITTED
O = BESTUECKT / FITTED
03.01
AEND. IND.
AENDERUNGS-MITTEILUNG
DATUM
NAME
1CMK
BEARB.
GEPR.
NORM
PLOTT
98-12-07
GROLL
GL
BENENNUNG
LINK HANDLER
TOP/TOP.7
ROHDE&SCHWARZ
ZEICHN.-NR.
1097.3570.01 S
BLATT-NR.
7 +
ZU GERAET CMD
REG.I V. 1050.9008
ERSTE Z. 1050.9008.01
BEHALTEN WIR UNS ALLE RECHTE VOR

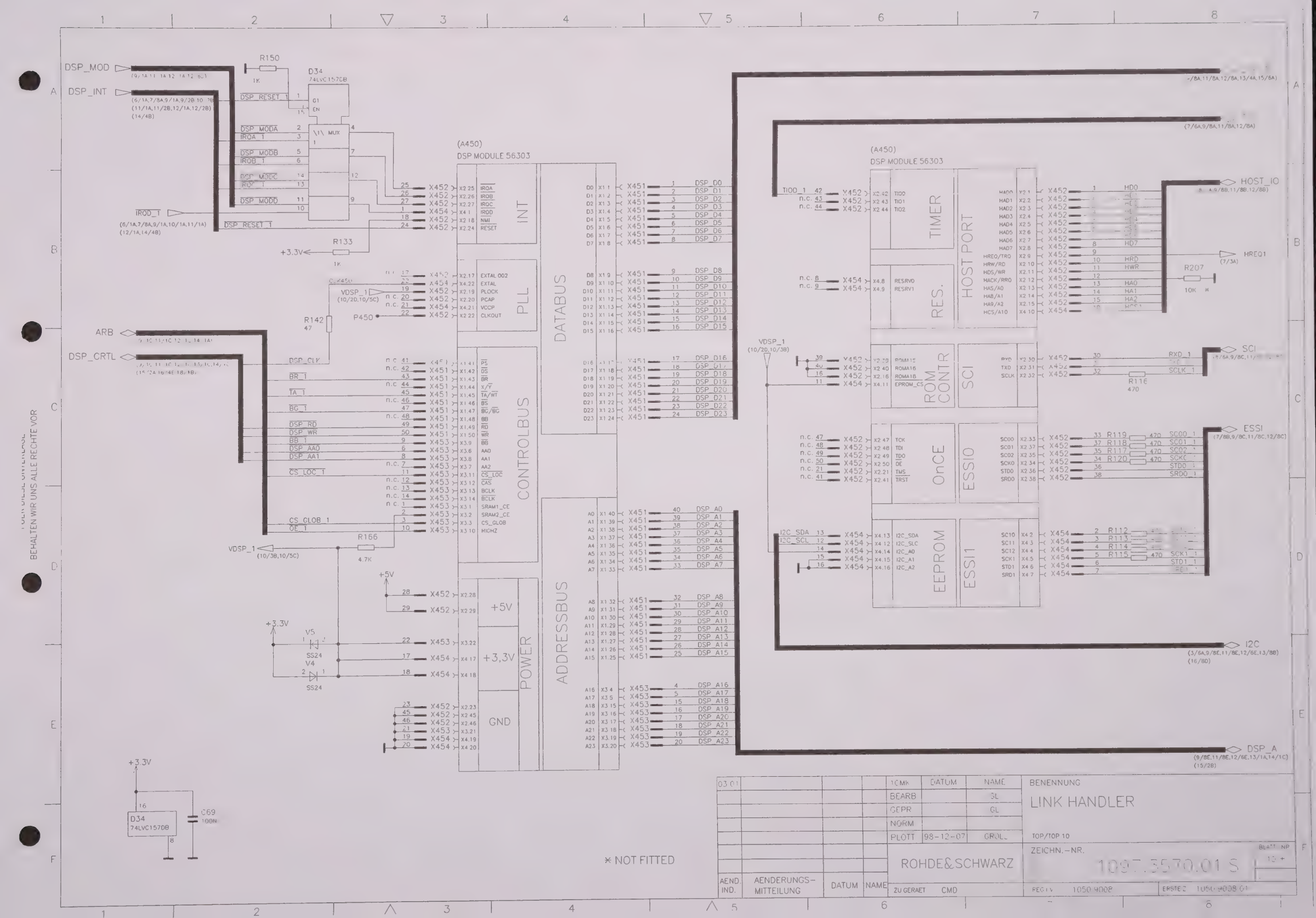

HOST_IO
D0..15
A0..19
CMDD0..7
SA0..10
D62
74ACT125T
MCXILDAT
D39
XC4003E
CMDD0
CMDD1
CMDD2
CMDD3
CMDD4
CMDD5
CMDD6
CMDD7
CS_XIL
KWR
KRD
SMEMRD
MC_SCI_RXD
MC_SCI_TXD
ATXILSEL
CPUCLK
BOARDCLK
CCLK
DOUT
PROG
DONE
IRQ3_INIT
HALT
SMEMWR
R224 4.7K
R281 2K
R221 4.7K
R223 4.7K
R222 4.7K
MCXILCLK
PROGSEL
D31
74ACT139M
CS_PERI
CS_XIL1 (8/3B)
CS_XIL2 (7/1A)
R37 10K
R45 10K
R46 10K
D40
74ACT574M
R225 4.7K
H2
LGS269B0
green
H1
LSS269B0
red
R237 2.2K
R238 2.2K
MCXILCLK (8/2D)
MCXILDAT (8/3B)
MCDSPRST0 (6/7B)
MCDSPRST1 (6/7C)
MCDSPRST2 (6/7C)
MCDSPRST3 (6/7C)
D41
74ACT541M
R226 1K
R227 1K
R230 1K
R231 1K
R232 1K
R233 1K
R234 1K
D0..15
DONE
IRQ3_INIT
SCI
(9/8C,10/8C,11/8C,12/8C)
R220 4.7K
SCK (3/1C)
MISO (3/1C)
MOSI (3/1C)
SCIEXTTXD
SCIEXTRXD
SCIEXTSCLK
HA0
HA1
HA2
HCS0
HCS1
HCS2
HCS3
HRD
HWR
C145 100N
C146 100N
C147 100N
C148 100N
VCC
GND
C149 16 100N
C150 20 100N
C151 20 100N
C162 14 100N
* NOT FITTED
LINK HANDLER
TOP/TOP.8
ROHDE&SCHWARZ
1097.3570.01 S
BLATT-NR. 8
ERSTE Z. 1050.9008.01
REG.I.V. 1050.9008
ZU GERAET CMD
1CMK DATUM NAME
BEARB. GL
GEPR. GL
NORM
PLOTT 98-12-07 GROLL
03.01
AEND. IND.
AENDERUNGS-MITTEILUNG
DATUM
NAME
BENENNUNG
ZEICHN.-NR.

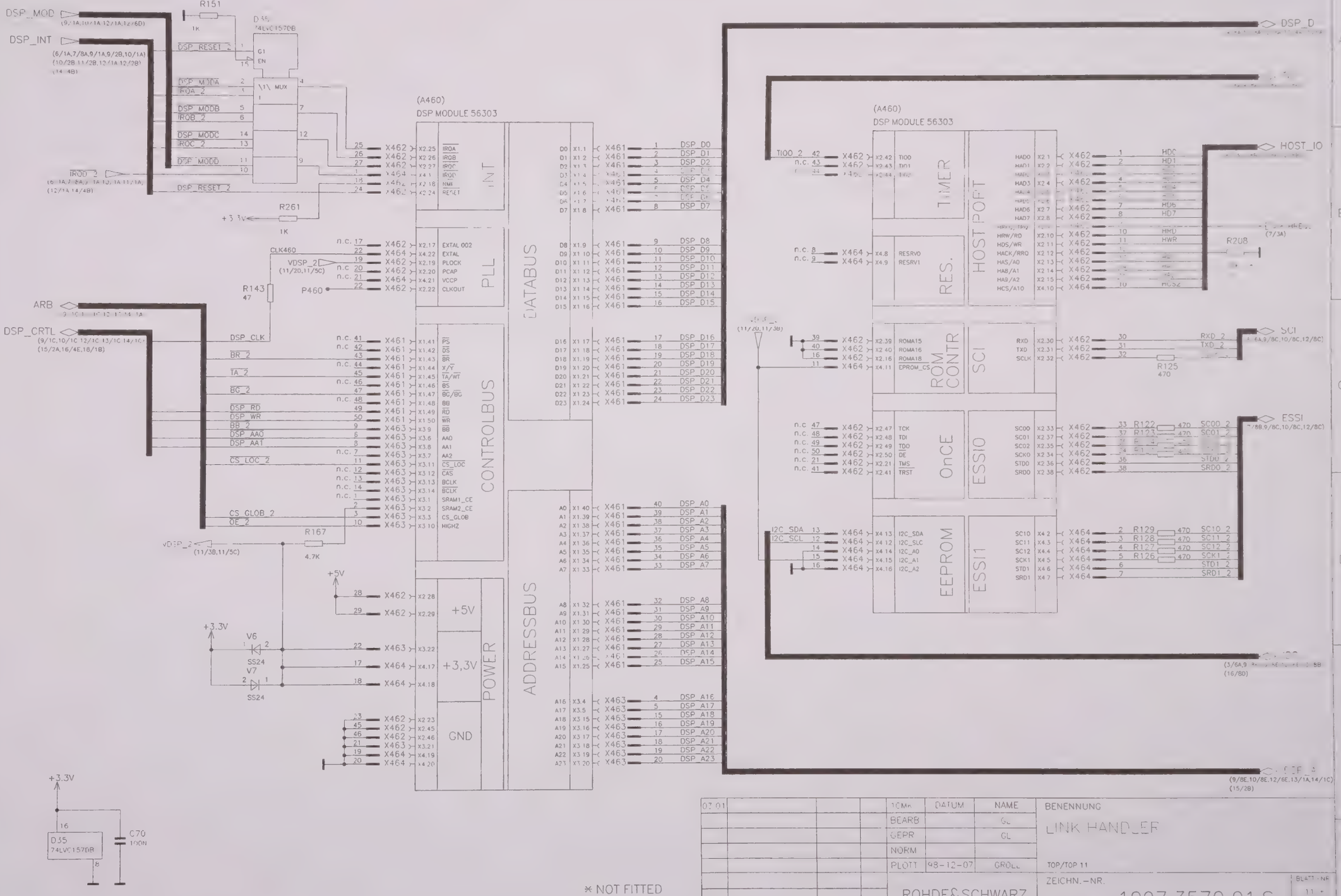


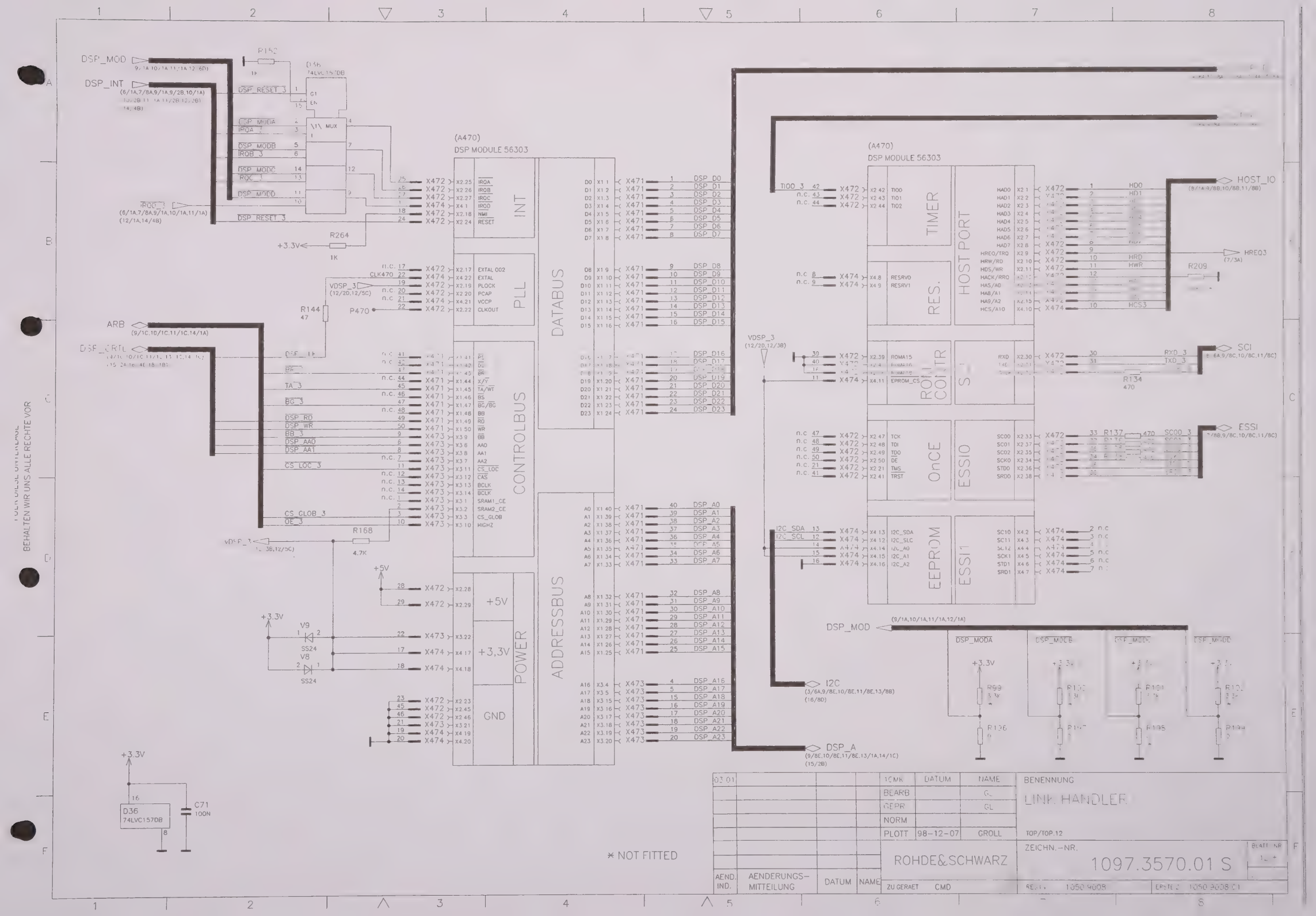
03.01				1CMK	DATUM	NAME	BENENNUNG
				BEARB.		GL	LINK HANDLER
				GEPR.		GL	
				NORM			
				PLOTT	98-12-07	GROLL	TOP/TOP 9
				ROHDE&SCHWARZ			ZEICHN.-NR. 1097.3570.01 S
AEND IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET CMD			REG I.V. 1050.9008 ERSTE Z. 1050.9008.01

BLATT-NR 9 +

BEHALTEN WIR UNS ALLE RECHTE VOR


DSP_MOD
DSP_INT
R150
1K
D34
74LVC157DB
DSP_RESET_1
DSP_MODA
IROA_1
DSP_MODB
IROB_1
DSP_MODC
DSP_MODD
IROD_1
R133
1K
+3.3V
(A450)
DSP MODULE 56303
INT
PLL
CONTROLBUS
DATABUS
ADDRESSBUS
POWER
+5V
+3,3V
GND
ARB
DSP_CRTL
R142
47
P450
VDSP_1
(10/20,10/5C)
DSP_CLK
BR_1
TA_1
BG_1
DSP_RD
DSP_WR
BB_1
DSP_AA0
DSP_AA1
CS_LOC_1
CS_GLOB_1
OE_1
R166
4.7K
VDSP_1
(10/38,10/5C)
+5V
+3.3V
V5
SS24
V4
SS24
D34
74LVC157DB
C69
100N
(A450)
DSP MODULE 56303
TIMER
HOST PORT
RES.
ROM CONTR
SCI
OnCE
ESSI0
EEPROM
ESSI1
HOST_IO
HREQ1
R207
10K
SCI
R116
470
ESSI
I2C
DSP_A
VDSP_1
(10/20,10/38)
* NOT FITTED
03.01
1CMK
DATUM
NAME
BEARB
GL
GEPR
GL
NORM
PLOTT
98-12-07
GROLL
BENENNUNG
LINK HANDLER
TOP/TOP 10
ROHDE&SCHWARZ
ZEICHN.-NR.
1097.3570.01 S
BLATT NR
AEND. IND.
AENDERUNGS-MITTEILUNG
DATUM
NAME
ZU GERAET
CMD
REG.I.V.
1050.9008
ERSTE Z.
1050.9008.01


DSP_MOD
DSP_INT
R151
1K
DSP_RESET_2
DSP_MODA
IRQA_2
DSP_MODB
IRQB_2
DSP_MODC
IROC_2
DSP_MODD
IROD_2
(A460)
DSP MODULE 56303
INT
PLL
CONTROLBUS
DATABUS
ADDRESSBUS
POWER
+5V
+3,3V
GND
R261
1K
CLK460
VDSP_2
(11/20,11/5C)
R143
47
P460
ARB
DSP_CRTL
DSP_CLK
BR_2
TA_2
BG_2
DSP_RD
DSP_WR
BB_2
DSP_AA0
DSP_AA1
CS_LOC_2
CS_GLOB_2
OE_2
R167
4.7K
V6
SS24
V7
SS24
D35
74LVC157DB
C70
100N
* NOT FITTED
DSP_D
HOST_IO
SCI
ESSI
TIMER
HOSTPORT
RES.
ROM CONTR
SCI
OnCE
ESSI0
EEPROM
ESSI1
R208
R125
470
ROHDE&SCHWARZ
ZEICHN.-NR.
1097.3570.01 S
LINK HANDLER
BENENNUNG
TOP/TOP 11
ZU GERAET CMD
REG.V. 1050.9008
ERSTE Z. 1050 9008.01


DSP_MOD
DSP_INT
R152
1K
D36
74LVC157DB
DSP_RESET_3
DSP_MODA
IRQA_3
DSP_MODB
IRQB_3
DSP_MODC
IRQC_3
DSP_MODD
IRQD_3
MUX
R264
1K
+3.3V
(A470)
DSP MODULE 56303
INT
IRQA
IRQB
IRQC
IRQD
NMI
RESET
PLL
EXTAL 002
EXTAL
PLOCK
PCAP
VCCP
CLKOUT
CLK470
VDSP_3
P470
R144
47
ARB
DSP_CRTL
CONTROLBUS
DSP_RD
DSP_WR
BB_3
DSP_AA0
DSP_AA1
CS_LOC_3
CS_GLOB_3
OE_3
SRAM1_CE
SRAM2_CE
CS_GLOB
HIGH2
R168
4.7K
POWER
+5V
+3,3V
GND
V9
V8
SS24
DATABUS
ADDRESSBUS
DSP_D0
DSP_D1
DSP_D2
DSP_D3
DSP_D4
DSP_D5
DSP_D6
DSP_D7
DSP_D8
DSP_D9
DSP_D10
DSP_D11
DSP_D12
DSP_D13
DSP_D14
DSP_D15
DSP_D16
DSP_D17
DSP_D19
DSP_D20
DSP_D21
DSP_D22
DSP_D23
DSP_A0
DSP_A1
DSP_A2
DSP_A3
DSP_A4
DSP_A5
DSP_A6
DSP_A7
DSP_A8
DSP_A9
DSP_A10
DSP_A11
DSP_A12
DSP_A13
DSP_A14
DSP_A15
DSP_A16
DSP_A17
DSP_A18
DSP_A19
DSP_A20
DSP_A21
DSP_A22
DSP_A23
(A470)
DSP MODULE 56303
TIMER
HOST PORT
RES.
ROM CONTR
S
OnCE
ESSI0
EEPROM
ESSI1
HOST_IO
HREQ3
SCI
ESSI
R209
R134
470
R137
I2C
DSP_A
DSP_MOD
DSP_MODA
DSP_MODB
DSP_MODC
DSP_MODD
R99
R136
R100
R101
R102
R103
R104
R105
R106
R107
R108
R109
R110
R111
R112
R113
R114
R115
R116
R117
R118
R119
R120
R121
R122
R123
R124
R125
R126
R127
R128
R129
R130
R131
R132
R133
R135
+3.3V
D36
74LVC157DB
C71
100N
* NOT FITTED
ROHDE&SCHWARZ
BENENNUNG
LINK HANDLER
TOP/TOP.12
ZEICHN.-NR.
1097.3570.01 S
ZU GERAET CMD
AENDERUNGS-MITTEILUNG
DATUM
NAME
BEARB
GEPR
NORM
PLOTT 98-12-07 GROLL
BLATT NR
ERSETZT 1050.9008.01
1050.9008

BEHALTEN WIR UNS ALLE RECHTE VOR

DSP CLOCK GENERATOR 66 MHZ

(A410) RAM MODULE

DSP_A (9/8E,10/8E,11/8E,12/6E,14/1C) (15/2B)

DSP_D (9/8A,10/8A,11/8A,12/8A,15/6A)

DSP_CRTL (9/1C,10/1C,11/1C,12/1C,14/1C) (15/2A,16/4E,18/1B)

DSP_CLK

(3/1B,6/10)

(A420) OPTION BOARD

A0..19 (4/1A,6/1A,7/1B,8/1A,17/8A)

D0..15 (4/1A,6/1A,7/3A,8/1A,8/4E) (17/8B)

(3/6C,4/1C) CS_LOG_MEM
(7/4C,7/6D,8/3C) BOARDCLK
(7/3E,7/4C) REFCLK
(3/6D,4/1A,8/3C) CPUCLK

* NOT FITTED

03.01					IDENT	DATUM	NAME
					BEARB.		GL
					GEPR.		GL
					NORM		
					PLOTT	98-12-07	GROLL

AEND. IND. | AENDERUNGS-MITTEILUNG | DATUM | NAME

BENENN.: LINK HANDLER

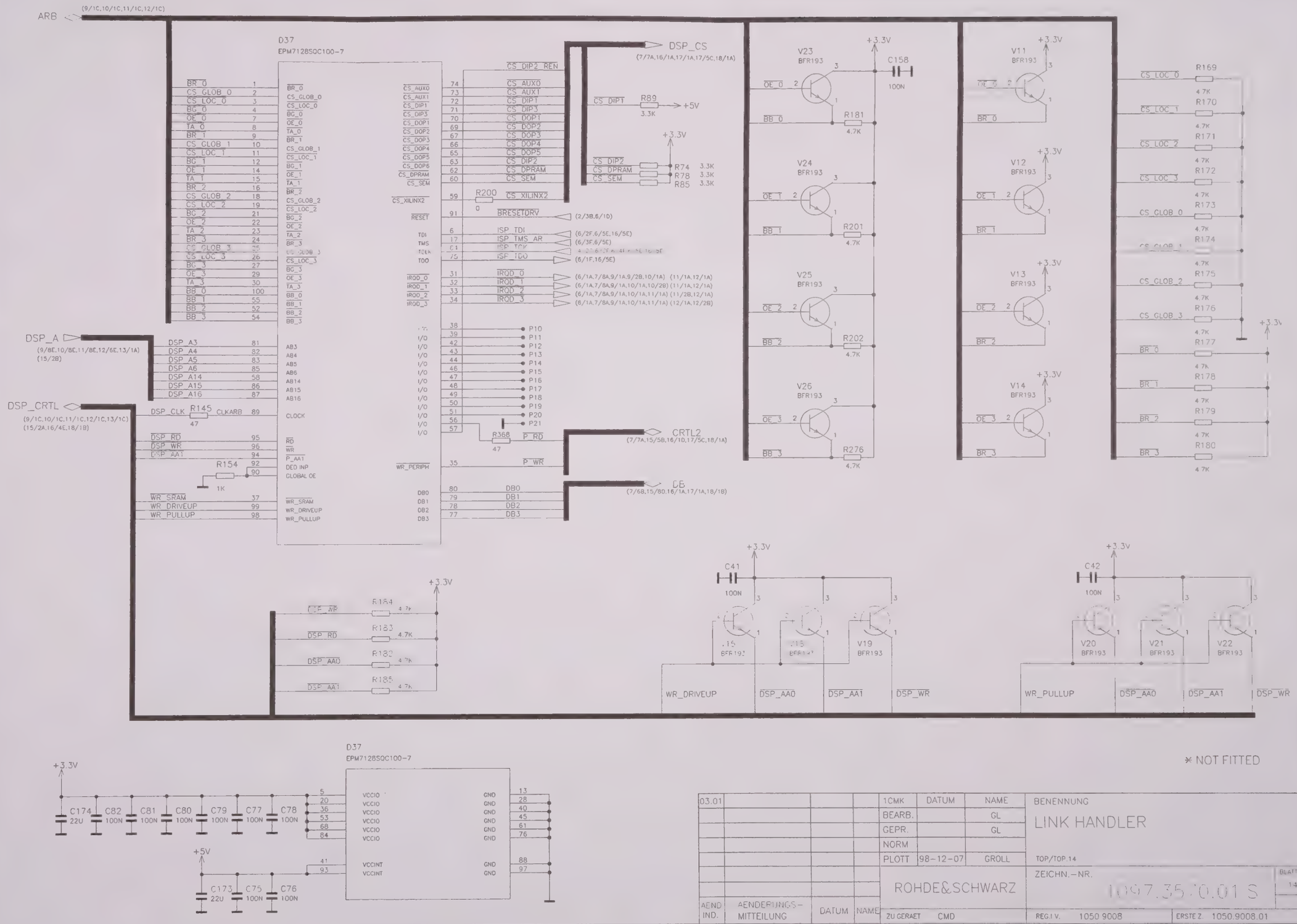
TOP/TOP.13

ROHDE&SCHWARZ

ZEICHN.-NR. 109.3570.01 S

BLATT NR 13

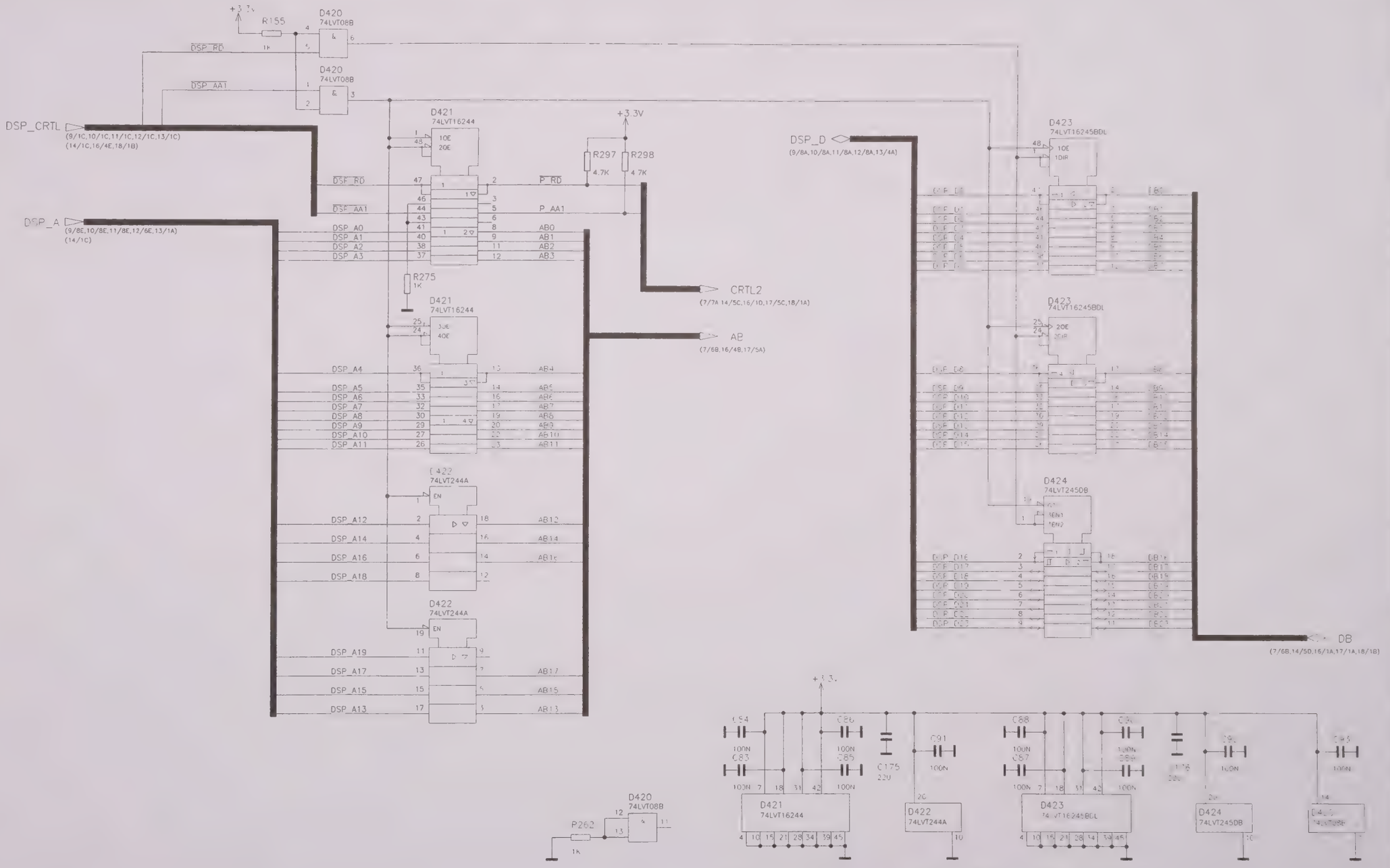
ZU GERAET CMD | REG I V. 1050.9008 | ERSTE Z. 1050.9008.01



BEHALTEN WIR UNS ALLE RECHTE VOR

03.01				1CMK	DATUM	NAME	BENENNUNG	
				BEARB.		GL	LINK HANDLER	
				GEPR.		GL		
				NORM				
				PLOTT	98-12-07	GROLL	TOP/TOP.14	
							ZEICHN.-NR.	BLATT-NR.
							1097.3570.01 S	14
AEND IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET CMD			REG.I V. 1050 9008	ERSTE Z. 1050.9008.01

ROHDE&SCHWARZ



C3.01					ICMA	DATUM	NAME
					BEARB		GL
					GEPR		GL
					NORM		
					PLOTT	98-12-07	GROLL
AEND IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME				

ROHDE&SCHWARZ

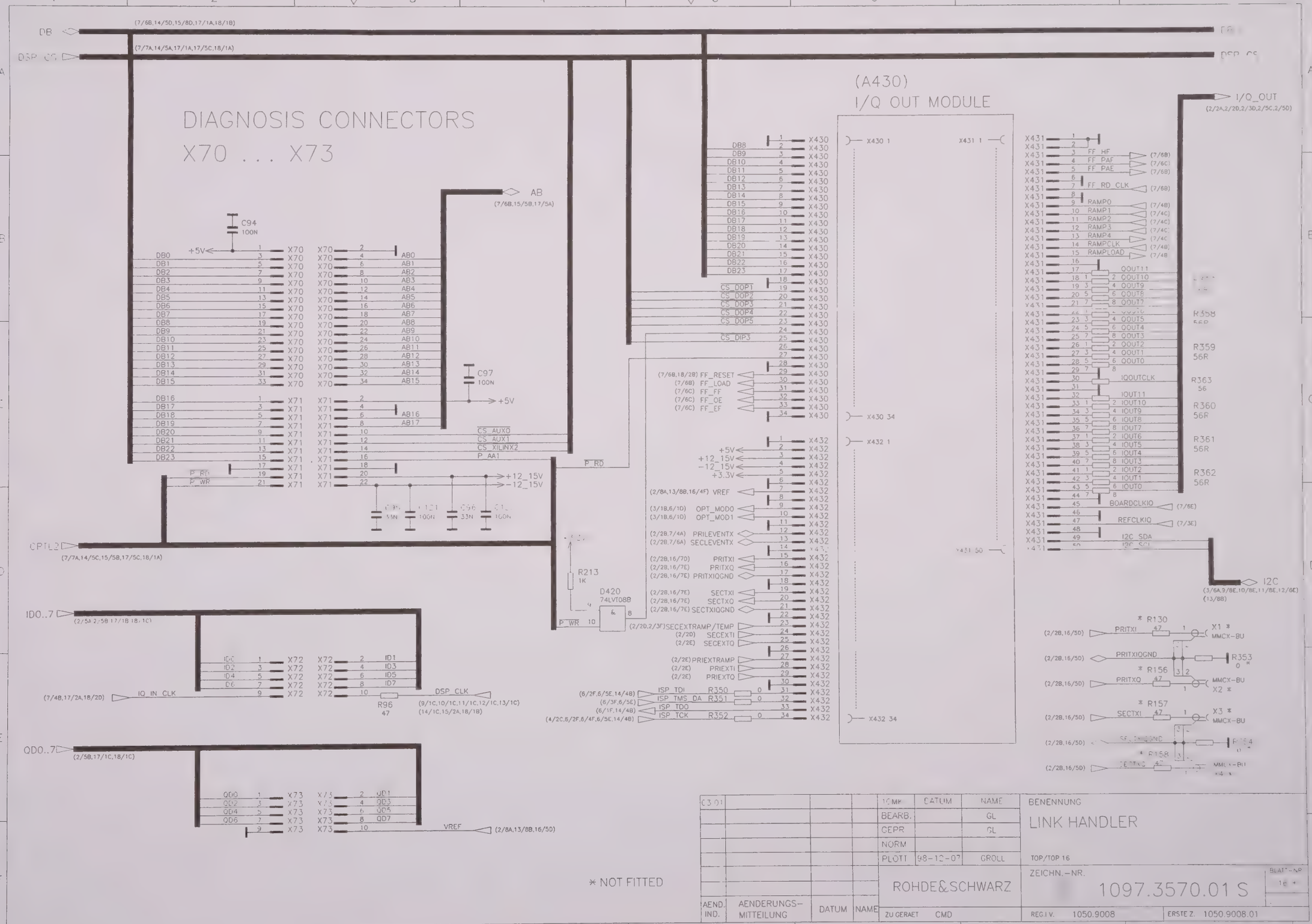
BENENNUNG
LINK HANDLER
TOP/TOP 15

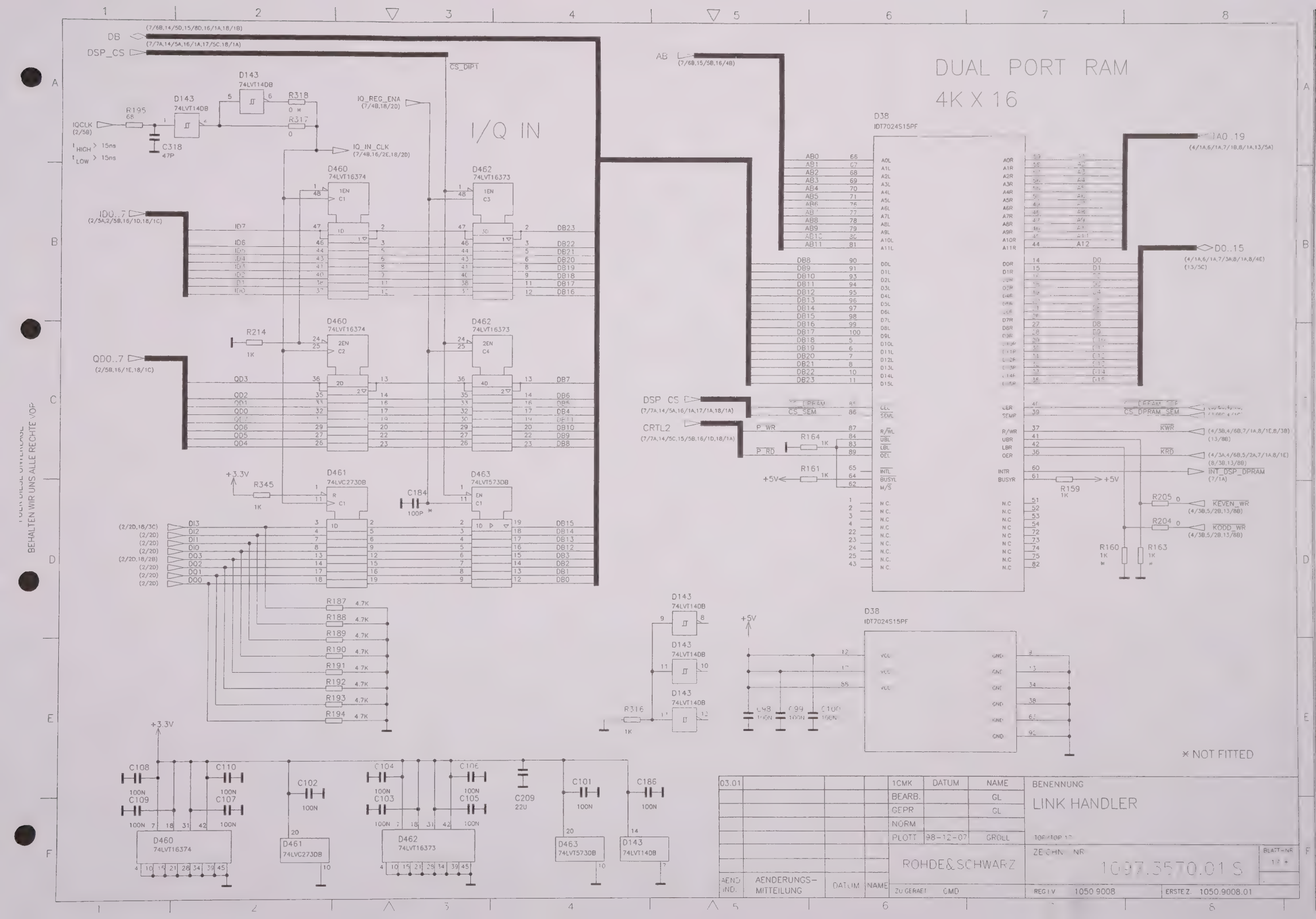
ZEICHN.-NR.
1097.3570.01 S

BLATT-NR.
15 +

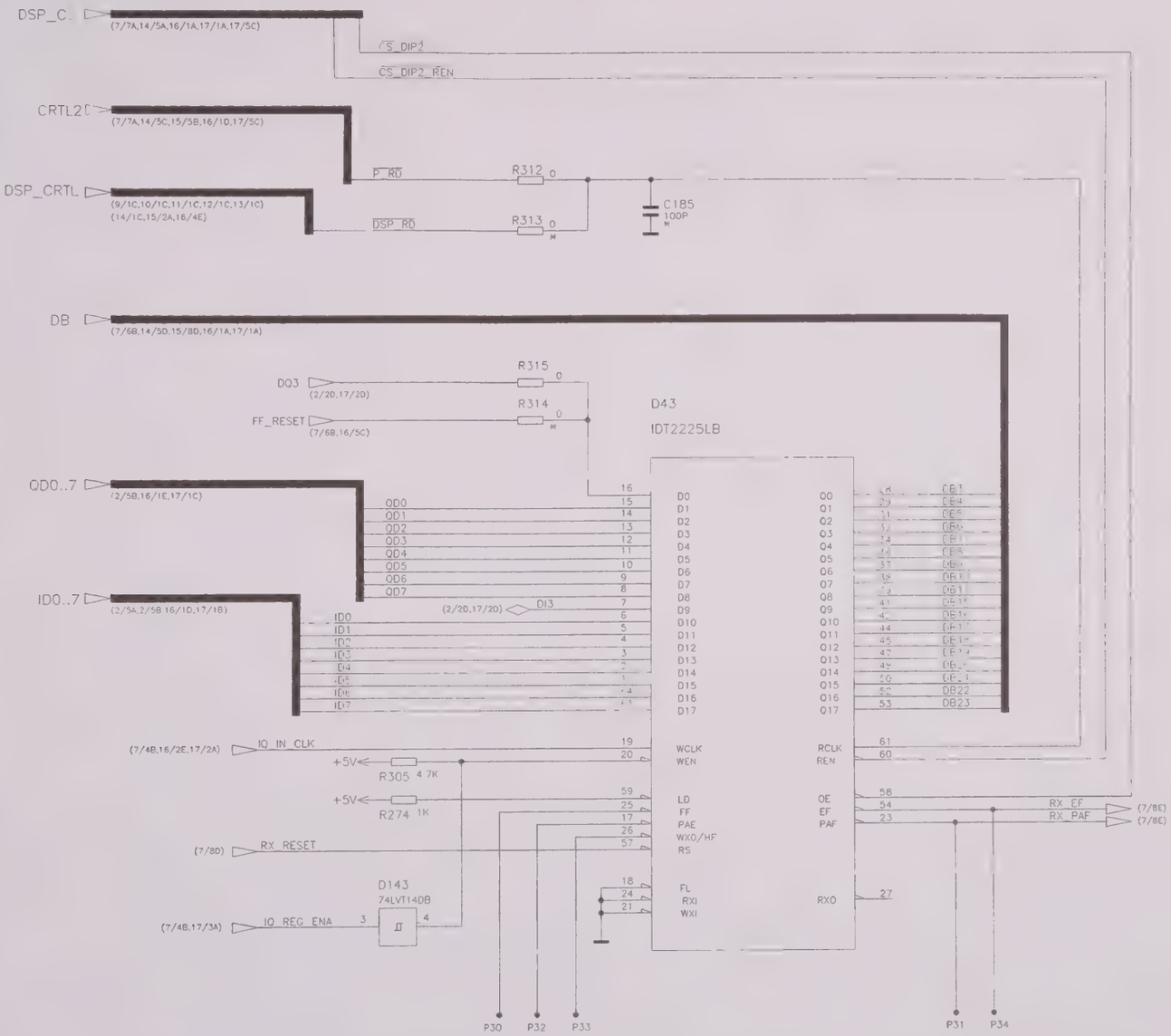
ZU GERAET CMD
1050 9008
ERSTE Z. 1050 9008.01

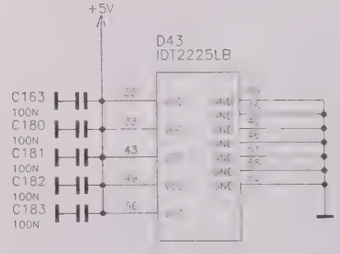
DIESE UNTERLAGEN BEHALTEN WIR UNS ALLE RECHTE VOR


DIAGNOSIS CONNECTORS
X70 ... X73
(A430)
I/Q OUT MODULE
DB
DSP_CS
AB
C94
100N
C97
100N
+5V
CS_AUX0
CS_AUX1
CS_XILINX2
P_AA1
P_RD
P_WR
+12_15V
-12_15V
CPTL2
ID0..7
IQ_IN_CLK
DSP_CLK
R96
47
QD0..7
VREF
R213
1K
D420
74LVT08B
CS_DOP1
CS_DOP2
CS_DOP3
CS_DOP4
CS_DOP5
CS_DIP3
FF_RESET
FF_LOAD
FF_FF
FF_OE
FF_EF
+3.3V
VREF
OPT_MOD0
OPT_MOD1
PRILEVENTX
SECLEVENTX
PRITXI
PRITXQ
PRITXIQGND
SECTXI
SECTXQ
SECTXIQGND
SECEXTRAMP/TEMP
SECEXTI
SECEXTQ
PRIEXTRAMP
PRIEXTI
PRIEXTQ
ISP_TDI
ISP_TMS_DA
ISP_TDO
ISP_TCK
R350
R351
R352
I/Q_OUT
FF_HF
FF_PAF
FF_PAE
FF_RD_CLK
RAMP0
RAMP1
RAMP2
RAMP3
RAMP4
RAMPCLK
RAMPLOAD
QOUT11
QOUT10
QOUT9
QOUT8
QOUT7
QOUT5
QOUT4
QOUT3
QOUT2
QOUT1
QOUT0
IQOUTCLK
IOUT11
IOUT10
IOUT9
IOUT8
IOUT7
IOUT6
IOUT5
IOUT4
IOUT3
IOUT2
IOUT1
IOUT0
BOARDCLKIQ
REFCLKIQ
I2C_SDA
I2C_SCL
R358
R359
56R
R363
56
R360
56R
R361
56R
R362
56R
I2C
R130
R156
R157
R158
R353
X1
X2
X3
MMCX-BU
* NOT FITTED
BEHALTEN WIR UNS ALLE RECHTE VOR
BENENNUNG
LINK HANDLER
TOP/TOP 16
ZEICHN.-NR.
1097.3570.01 S
ROHDE&SCHWARZ
ZU GERAET CMD
REG.I.V. 1050.9008
ERSTE Z. 1050.9008.01
AEND. IND.
AENDERUNGS-MITTEILUNG
DATUM
NAME
BEARB.
GEPR
NORM
PLOTT
98-12-07
GROLL


DUAL PORT RAM
4K X 16
I/Q IN
DB
DSP_CS
AB
IQCLK
IQ_REG_ENA
IQ_IN_CLK
ID0..7
QD0..7
DSP CS
CRTL2
D38
IDT7024S15PF
D143
74LVT14DB
D460
74LVT16374
D462
74LVT16373
D461
74LVC273DB
D463
74LVT573DB
R195
R318
R317
C318
R214
R345
C184
R164
R161
R159
R205
R204
R160
R163
R316
R187
R188
R189
R190
R191
R192
R193
R194
C108
C109
C110
C107
C102
C104
C103
C106
C105
C209
C101
C186
C98
C99
C100
+3.3V
+5V
* NOT FITTED
03.01
1CMK
DATUM
NAME
BEARB.
GL
GEPR
GL
NORM
PLOTT
98-12-07
GROLL
BENENNUNG
LINK HANDLER
ROHDE&SCHWARZ
ZEICHN. NR
1097.3570.01 S
BLATT-NR
AEND. IND.
AENDERUNGS-MITTEILUNG
DATUM
NAME
ZU GERAET
CMD
REG I V
1050 9008
ERSTE Z.
1050.9008.01
BEHALTEN WIR UNS ALLE RECHTE VOR

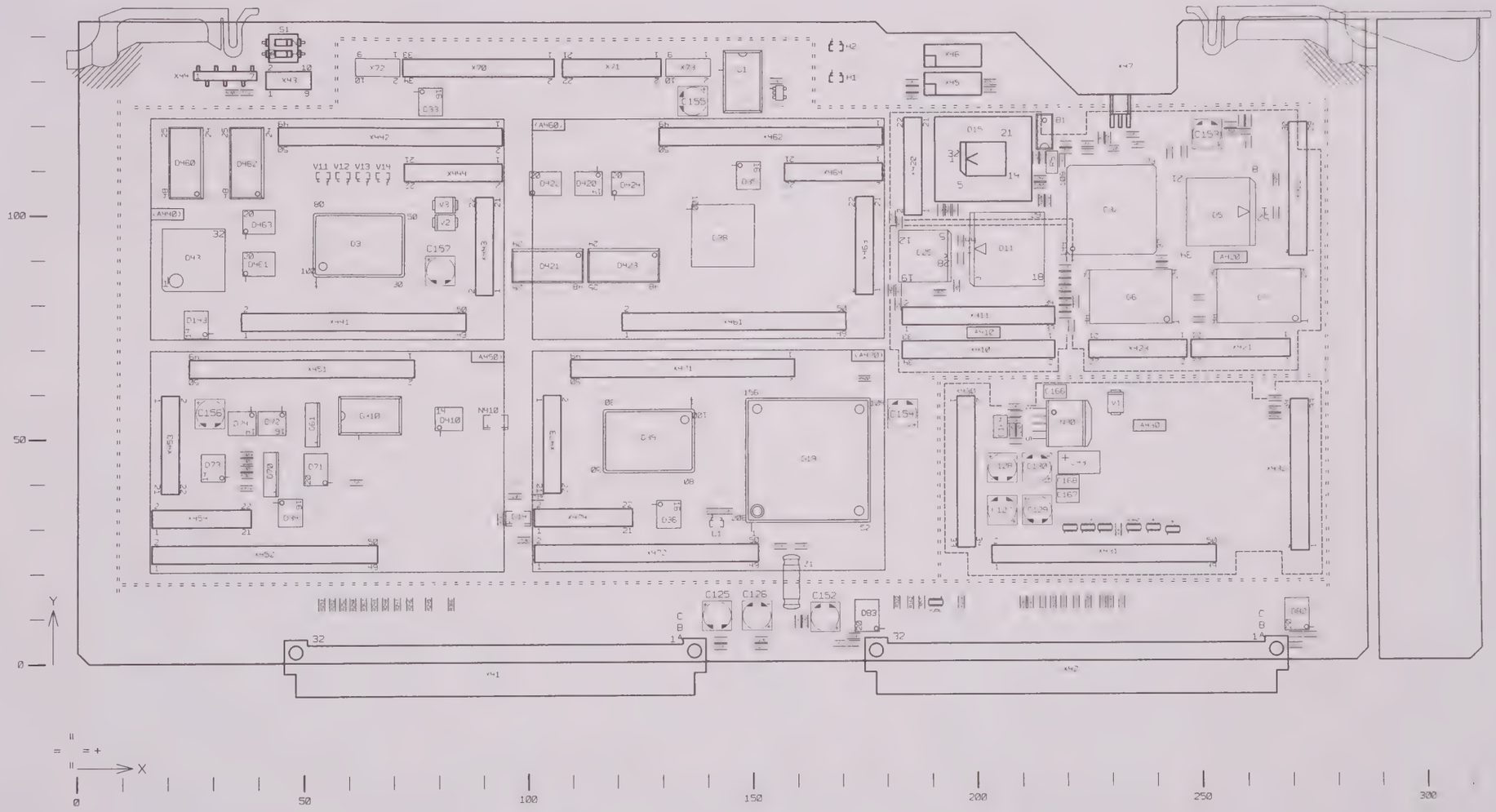
BEHALTEN WIR UNS ALLE RECHTE VOR





* NOT FITTED

03.01				1CMK	DATUM	NAME	BENENNUNG
				BEARB.		GL	LINK HANDLER
				GEPR.		GL	
				NORM			TOP/TOP 18
				PLOTT	98-12-07	GROLL	
							ZEICHN.-NR.
							1097.3570.01 S
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET	CMD	REG.I V	1050.9008
				ROHDE&SCHWARZ		ERSTE Z.	1050.9008.01



DARSTELLUNG SEITE B
VIEW ON SIDE B

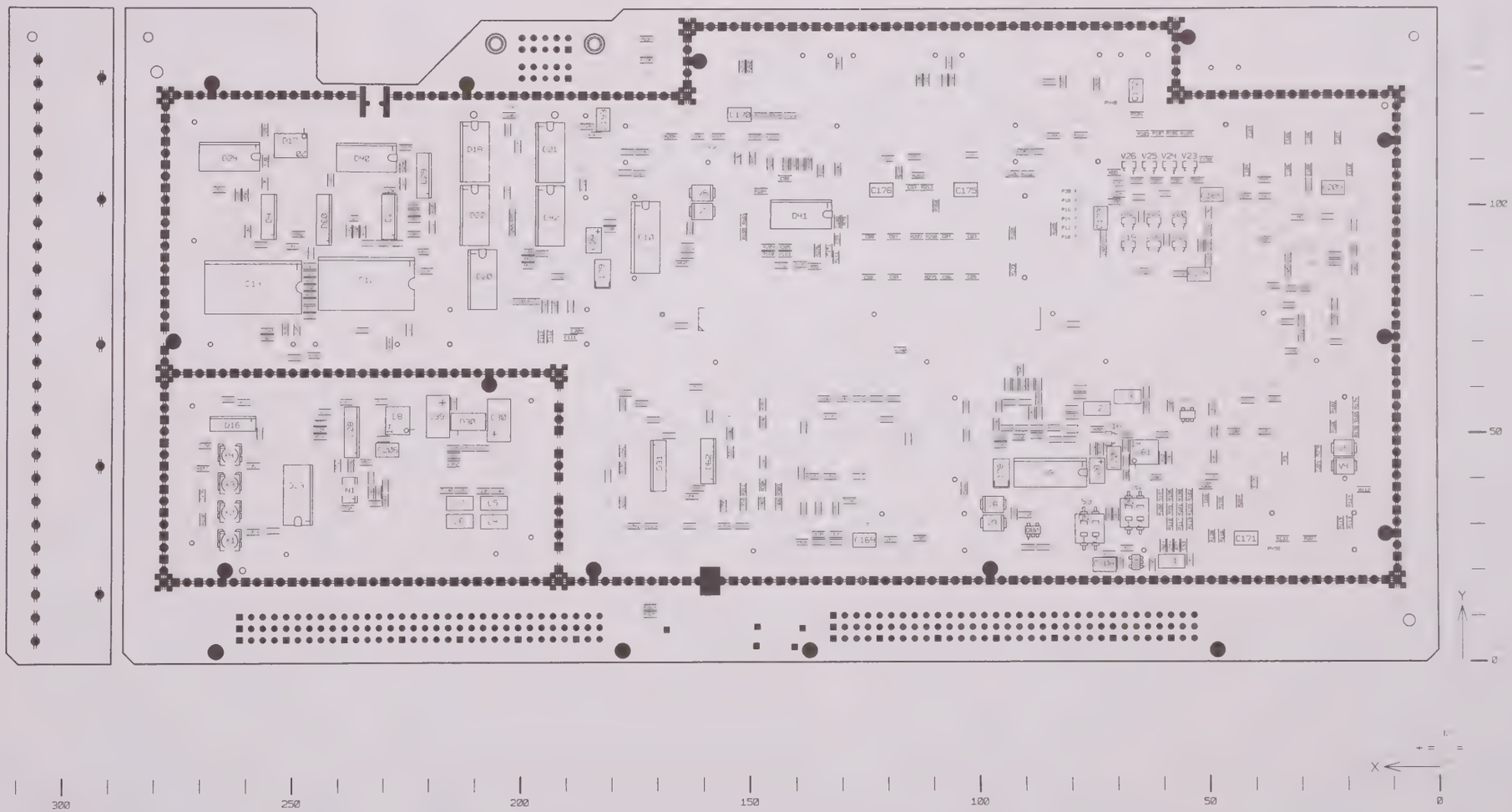
ACHTUNG: EGB:
ELECTROSTATISCH GEFÄHRDETE
BAUELEMENTE ERFORDERN EINE
GESONDERE HANDHABUNG

ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES
REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN ÜBER VARIANTEN,
TRIMMWERTE, BAUTEILWERTE UND
NICHT BESTÜCKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS,
TRIMMING AND COMPONENTS VALUES AND
NONFITTED COMPONENTS SEE PARTS LIST.

ROHDE&SCHWARZ	LINK HANDLER
	ZEICHN.-NR. 1097.3570.01 D
	REG.I.V. 1050 9008 / DRITT 2. 1050 9008



DARSTELLUNG SEITE A
VIEW ON SIDE A

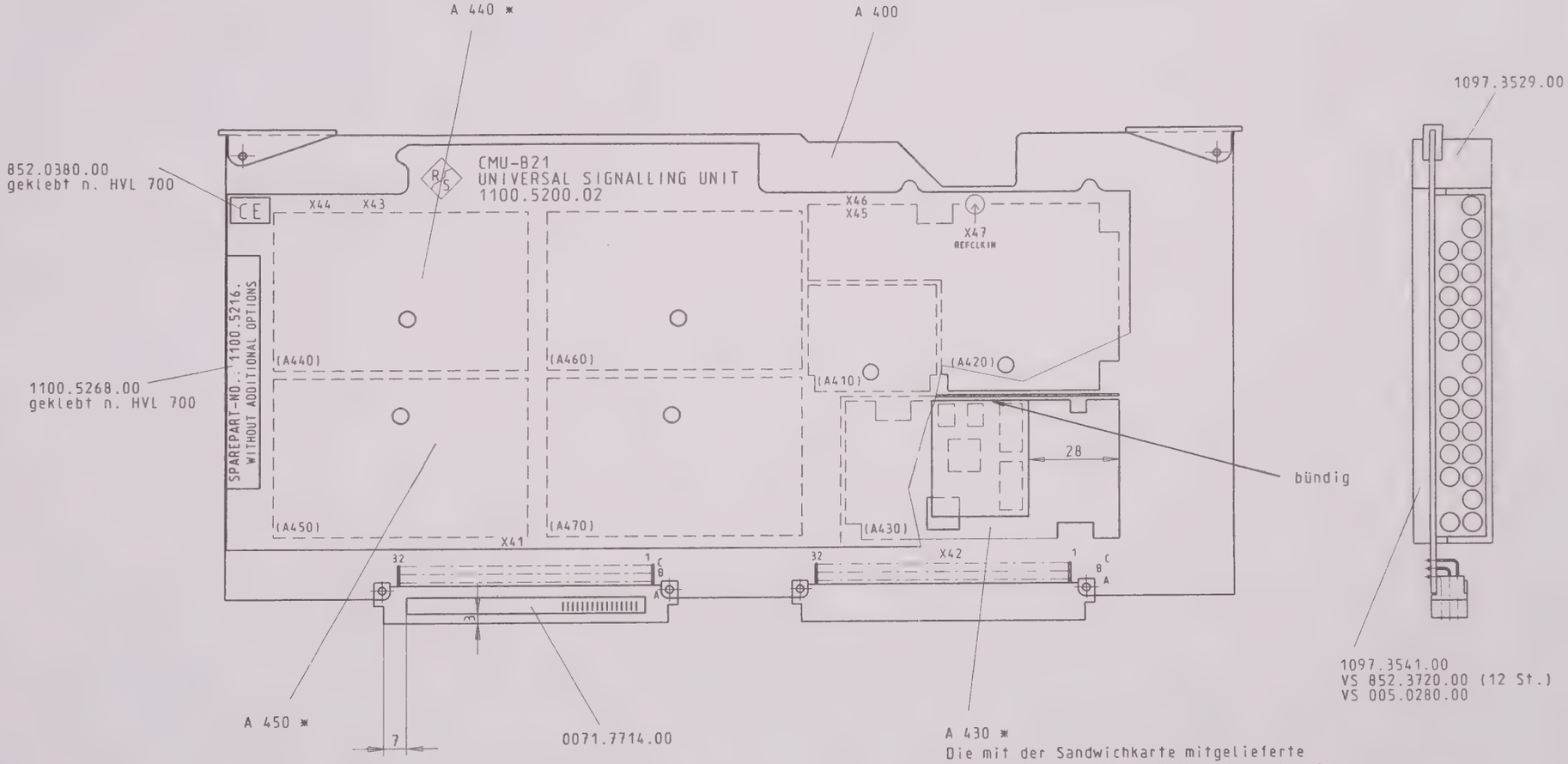
ACHTUNG: EGB!
ELEKTROSTATISCH GEFÄHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

HINSICHT ANDERER LEIDER VARIANTEN, INTERNATIONALE BAUTEILNUMMER UND NICHT BESTÜCKTE BAUTEILE SIEHE SA

FOR BINDING INFORMATION ON MODELS, TYPING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

GEPR.		BENENNUNG: LINK HANDLER
PLOTT 08-12-05	GROLL	ZEICHN.-NR. 1097.3570.01 D
ROHDE&SCHWARZ		ORSTE Z 1050 9008

* Sandwichbaugruppen bis auf Anschlag der Steckverbindungen gesteckt



Variantenerklärung

VAR 02 = Grundausführung

				Masze ohne Toleranzangabe			Maszstab 1 1
							Werkstoff
03		27.01.99	Bi	1CMK	Datum	Name	Benennung
04		05.02.99	Bi	Bearb.	15.03.99	bi	ZE UNIVERS. SIGN. UNIT
05		15.03.99	Bi	Gepr.	. .		
				Norm			
				Plot	19.03.99		
				ROHDE&SCHWARZ			Zeichn.-Nr. 1100.5216.01
Zust.	Mitteilung	Datum	Name	zu Geraet CMU-B21			reg i V 1100.5200.00 erste Z. 1100.5200.01

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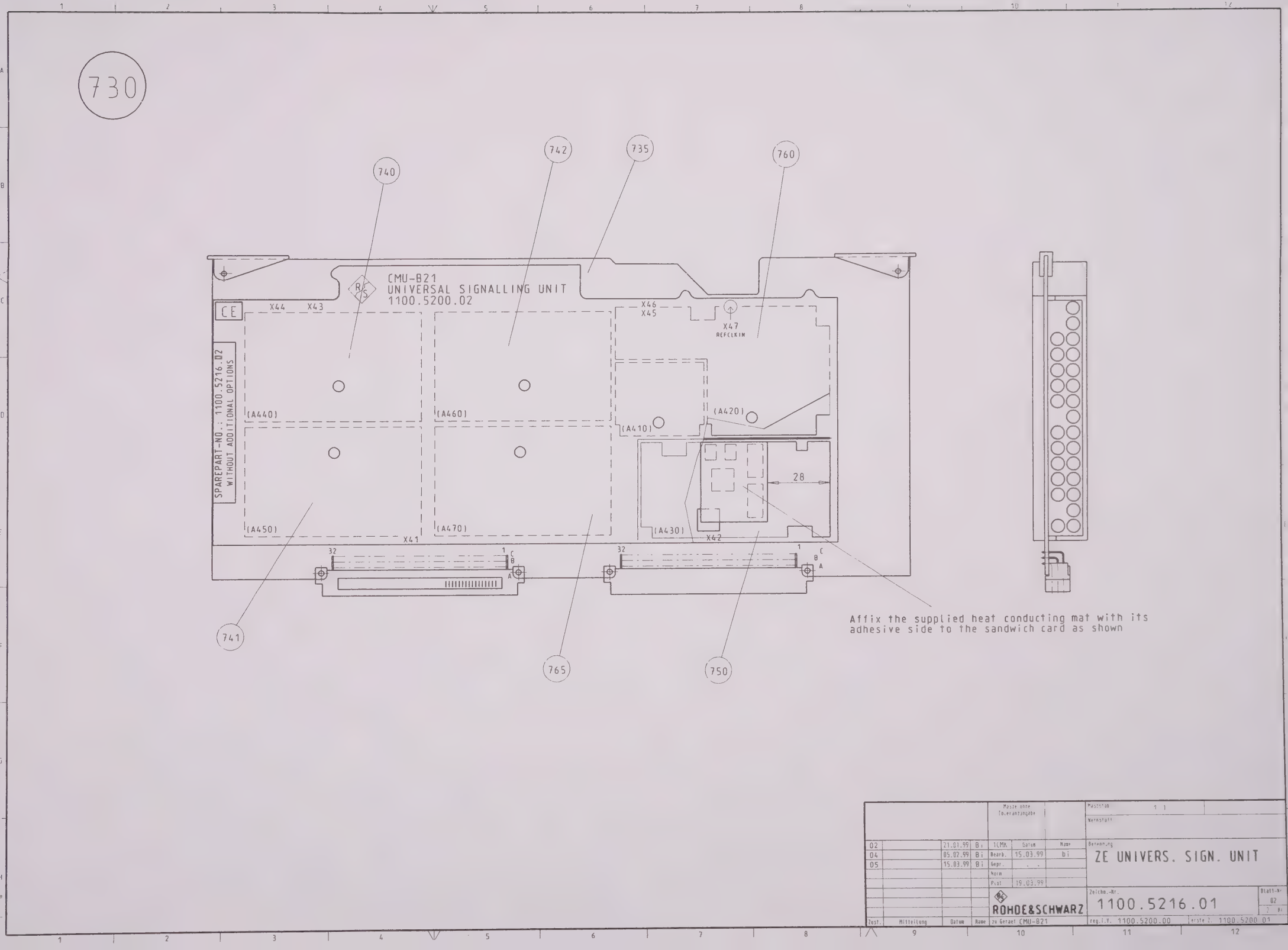
ISO-Projektion Methode E

R&S



730
740
742
735
760
CMU-B21
UNIVERSAL SIGNALLING UNIT
1100.5200.02
CE
X44
X43
X46
X45
X47
REFCLKIN
SPAREPART-NO.: 1100.5216.02
WITHOUT ADDITIONAL OPTIONS
(A440)
(A460)
(A410)
(A420)
(A450)
(A470)
(A430)
X41
X42
28
32
1
C
B
A
741
765
750
Affix the supplied heat conducting mat with its adhesive side to the sandwich card as shown
Masze ohne Toleranzangabe
Maßstab 1:1
Werkstoff
02 21.01.99 Bi
04 05.02.99 Bi
05 15.03.99 Bi
1CMK Datum Name
Bearb. 15.03.99 bi
Gepr.
Norm
Plat 19.03.99
Benennung
ZE UNIVERS. SIGN. UNIT
ROHDE&SCHWARZ
Zeichn.-Nr. 1100.5216.01
Blatt-Nr. 02
Zust. Mitteilung Datum Name
zu Geraet CMU-B21
reg.i.V. 1100.5200.00
erste Z. 1100.5200.01
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ISO-Projektion Methode E
R&S

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
.	XX VARIANTENERKLAERUNG IDENTIFICATION OF MODELS				
C1	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C2	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C3	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C4 ..7	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C8	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39COG***F50ZPT	
C11 ..15	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C20	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C22 ..29	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C30	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39COG***F50ZPT	
C31	CC 180PF+-1% 50V NPO 0603 SMD-CERAMIC-CAPACITOR	1097.6305.00	MURATA	GRM39COG***F50ZPT	
C32	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C33	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C40 ..45	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C52 ..55	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C70	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C71	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C72	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C73	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C74	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C75	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C76	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C77	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C78	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C80 ..83	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
D1	BL 74LVT08DB 4X2AND 3.3V QUAD 2-IN AND GATE	0048.3180.00	PHILIPS_SE	74LVT08(DB)	
D10	BC DSP56303PV66 SIGNPROC IC DIG SIGN PROCESSOR	0048.3500.00	MOTOROLA	DSP56303PV66 / 3J22A	
D11 ..15	BL 74CBT3384A 2X5SWITCH 10-BIT BUS SWITCH	1097.6457.00	TEXAS	SN74CBT3384A(DB)	
D20	BC X24164S8 2KX8 EEPROM IC MEMORY	2013.8937.00	ATMEL	AT24C164-10SC-2.7	
D40	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 03	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D40	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 13	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D40	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 23	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D42	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 03	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D42	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 13	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D42	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 23	1065.8402.00	SAMSUNG	KM68V1002AJ-12	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
D44	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 03	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D44	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 13	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D44	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 23	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D50	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 03	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D50	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 13	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D50	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 23	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D50	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 02	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D50	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 04	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D50	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 12	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D50	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 14	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D50	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 22	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D52	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 24	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D52	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 03	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D52	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 13	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D52	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 23	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D52	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 02	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D52	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 04	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D52	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 12	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D52	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 14	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D52	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 22	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D54	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 24	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D54	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 03	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D54	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 13	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D54	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 23	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D54	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 04	2080.3810.00	SAMSUNG	KM68V4002B-12J	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
D54	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 12	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D54	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 14	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D54	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 22	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D54	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 24	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D70	BO LT1117CSTLOWDROP+VREGL VOLTAGE REGULATOR	1036.4283.00	LINEAR_TEC	LT1117(CST)	
D71	BO LT1117CSTLOWDROP+VREGL VOLTAGE REGULATOR	1036.4283.00	LINEAR_TEC	LT1117(CST)	
D80	BL 74LVT08DB 4X2AND 3.3V QUAD 2-IN AND GATE	0048.3180.00	PHILIPS_SE	74LVT08(DB)	
D81	BL 74LVT00DB 4X2NAND 3.3V QUAD 2-IN NAND GATE	0048.3151.00	PHILIPS_SE	74LVT00DB	
D82	BL 74LVT02DB 4X2NOR 3.3V QUAD 2-IN NOR GATE	0048.3168.00	PHILIPS_SE	74LVT02DB	
D83	BL 74LVT10DB 3X3NAND 3.3V TRIPLE 3-NAND GATE	1097.6440.00	PHILIPS_SE	74LVT10(DB)	
L1	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
R1 ..11	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R12	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R13	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R14	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R15	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R16	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R17	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R18	RG 270R +-1% TK200 0603 SMD-RESISTOR EIA0603 270R	0010.9581.00	DRALORIC	CR 0603	
R19	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R20 ..23	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R24	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R24	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R24	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R24	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R24	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R25	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.7020.00	DRALORIC	CR 0603	
R25	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.7020.00	DRALORIC	CR 0603	
R25	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.7020.00	DRALORIC	CR 0603	
R25	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.7020.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R26	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.7020.00	DRALORIC	CR 0603	
R26	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.7020.00	DRALORIC	CR 0603	
R26	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.7020.00	DRALORIC	CR 0603	
R26	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.7020.00	DRALORIC	CR 0603	
R27	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R27	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R27	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R27	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R27	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R27	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 O OHM	
..28 R29	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 O OHM	
..29 ..29 ..29 R29	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R29	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R29	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R29	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R29	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R31	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R31	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R31	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R31	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R31	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R31	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R32	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R32	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R32	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 O OHM	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R32	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R33	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.7020.00	DRALORIC	CR 0603	
R33	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.7020.00	DRALORIC	CR 0603	
R33	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.7020.00	DRALORIC	CR 0603	
R33	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.7020.00	DRALORIC	CR 0603	
R33	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.7020.00	DRALORIC	CR 0603	
R34	RG 22R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6901.00	DRALORIC	CR 0603	
R35	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R35	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R35	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R35	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R35	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R35	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R36	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R36	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R36	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R37	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R37	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R37	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R37	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R37	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R37	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R38	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R38	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 O OHM	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R38	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R38	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R39	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.7020.00	DRALORIC	CR 0603	
R39	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.7020.00	DRALORIC	CR 0603	
R39	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.7020.00	DRALORIC	CR 0603	
R39	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.7020.00	DRALORIC	CR 0603	
R39	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.7020.00	DRALORIC	CR 0603	
R40	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R40	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R41	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R41	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R42	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R42	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R42	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R42	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R43	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R43	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R43	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R44	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R44	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R44	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R44	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R44	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R44	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R44	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.9369.00	PHILIPS_CO	RC21 0 OHM	

Für diese Unterlage behalten wir uns alle Rechte vor

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R45	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R45	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R45	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R46	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	RG 0009.5357.00	DRALORIC	CR 0603	
R46	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	RG 0009.5357.00	DRALORIC	CR 0603	
R46	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	RG 0009.5357.00	DRALORIC	CR 0603	
R46	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	RG 0009.5357.00	DRALORIC	CR 0603	
R46	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	RG 0009.5357.00	DRALORIC	CR 0603	
R47	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R48	RG 68OR +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6982.00	DRALORIC	CR 0603	
R49	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R50 ..53	RG 33OR +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6960.00	DRALORIC	CR 0603	
R54	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R54	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R54	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R54	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R54	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R54	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R55	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R56	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R57	RL 0,40W 10,0KOHM+-1%TK50 RESISTOR	RL 0092.1567.00	DRALORIC	SMA0204	
R58	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R70	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R71	RG 619R +-1% TK200 0603 RESISTOR	1093.6169.00	DRALORIC	CR 0603	
R72	RG 560R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.9630.00	DRALORIC	CR 0603	
R73	RG 619R +-1% TK200 0603 RESISTOR	1093.6169.00	DRALORIC	CR 0603	
R74	RG 1,0 OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8265.00	PHILIPS_CO	RC 02	
R75	RG 1,0 OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8265.00	PHILIPS_CO	RC 02	
R80	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 0 OHM	

Für diese Unterlage behalten wir uns alle Rechte vor.

Kennz. Comp No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R80	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R82	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R82	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R83	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R84	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R90	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R90	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R90	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R90	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R90	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R90	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R90	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R91	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R91	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R91	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R92	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R92	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R93	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R93	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R93	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R93	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R93	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R93	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R94	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R94	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R94	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 O OHM	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R95	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R95	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R95	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R95	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R96	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R97	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R98	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
V1	AD BAS216 75V UDI HIGHSPEED SWITCHING DIODE	0010.9346.00	PHILIPS_SE	BAS216	
V2	AD BAS216 75V UDI HIGHSPEED SWITCHING DIODE	0010.9346.00	PHILIPS_SE	BAS216	
V3	AK BFR193 N 12V 80MA TRANSISTOR	6024.2718.00	SIEMENS	BFR193 (-F1218)	
V4	AK BFR193 N 12V 80MA TRANSISTOR	6024.2718.00	SIEMENS	BFR193 (-F1218)	
V5	AK BFR193 N 12V 80MA TRANSISTOR NUR VAR/ONLY MOD: 02	6024.2718.00	SIEMENS	BFR193 (-F1218)	
V5	AK BFR193 N 12V 80MA TRANSISTOR NUR VAR/ONLY MOD: 03	6024.2718.00	SIEMENS	BFR193 (-F1218)	
V5	AK BFR193 N 12V 80MA TRANSISTOR NUR VAR/ONLY MOD: 04	6024.2718.00	SIEMENS	BFR193 (-F1218)	
V5	AK BFR193 N 12V 80MA TRANSISTOR NUR VAR/ONLY MOD: 05	6024.2718.00	SIEMENS	BFR193 (-F1218)	
V5	AK BFR193 N 12V 80MA TRANSISTOR NUR VAR/ONLY MOD: 22	6024.2718.00	SIEMENS	BFR193 (-F1218)	
V5	AK BFR193 N 12V 80MA TRANSISTOR NUR VAR/ONLY MOD: 23	6024.2718.00	SIEMENS	BFR193 (-F1218)	
V6	AK BFT92 P 15V 25MA 5 GHZ WIDEBAND TRANSISTOR	1075.4068.00	SIEMENS	BFT92 (-F1062)	
V7	AK BFT92 P 15V 25MA 5 GHZ WIDEBAND TRANSISTOR	1075.4068.00	SIEMENS	BFT92 (-F1062)	
V10	AE HSMS2810 SCHOTTKY SCHOTTKY DIODE	0520.7340.00	HEWLETT_PA	HSMS-2810	
V15	AD BAS216 75V UDI HIGHSPEED SWITCHING DIODE	0010.9346.00	PHILIPS_SE	BAS216	
X1	FP BUCHSENLEISTE 50P. SMD CONNECTOR 50P SMD	FP 1065.8702.00	3M	150250-2020TB	
X2	FP BUCHSENLEISTE 50P. SMD CONNECTOR 50P SMD	FP 1065.8702.00	3M	150250-2020TB	
X3	FP BUCHSENLEISTE 22P.SMD CONNECTOR	FP 1097.6157.00	3M	150222-2020TB	
X4	FP BUCHSENLEISTE 22P.SMD CONNECTOR	FP 1097.6157.00	3M	150222-2020TB	
X10	FP STECKERLEISTE 14POL. CONNECTOR 14P	FP 6040.4605.00			

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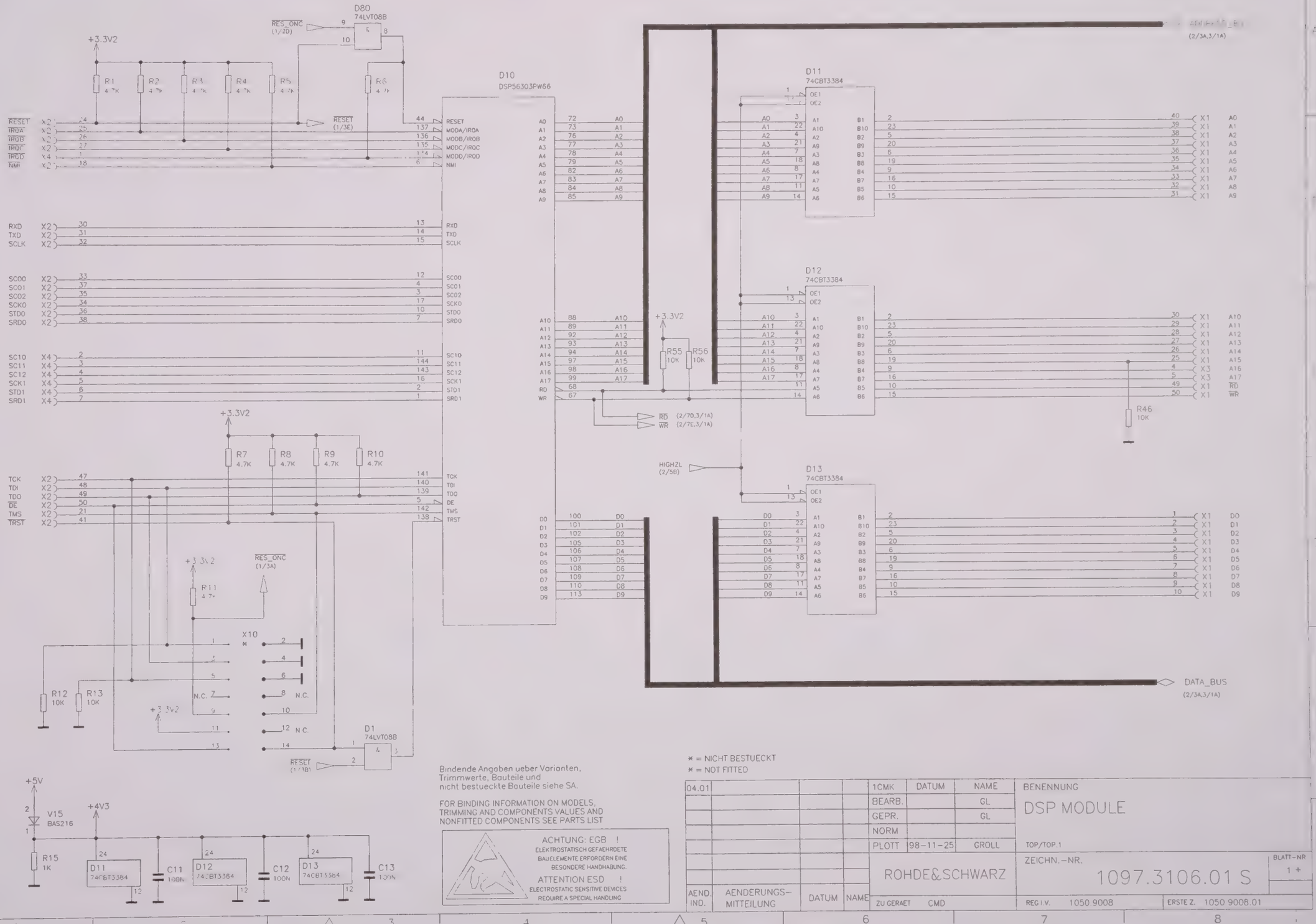


Bindende Angaben ueber Varianten, Trimmwerte, Bauteile und nicht bestueckte Bauteile siehe SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST

ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

× = NICHT BESTUECKT
× = NOT FITTED

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
04.01			

	1CMK	DATUM	NAME
BEARB.			GL
GEPR.			GL
NORM			
PLOTT	98-11-25		GROLL

ROHDE&SCHWARZ

ZU GERAET CMD

BENENNUNG
DSP MODULE
TOP/TOP.1

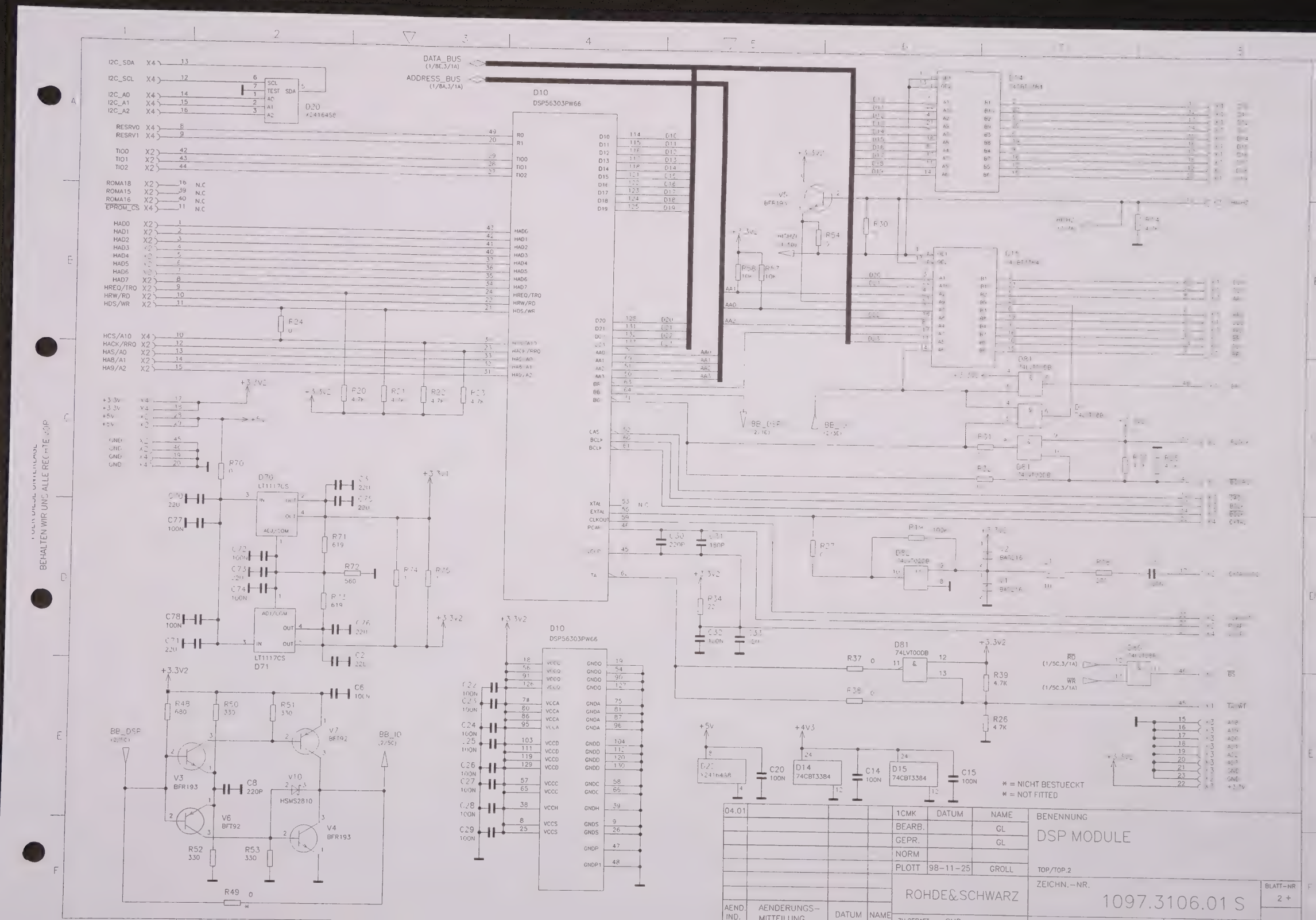
ZEICHN.-NR.
1097.3106.01 S

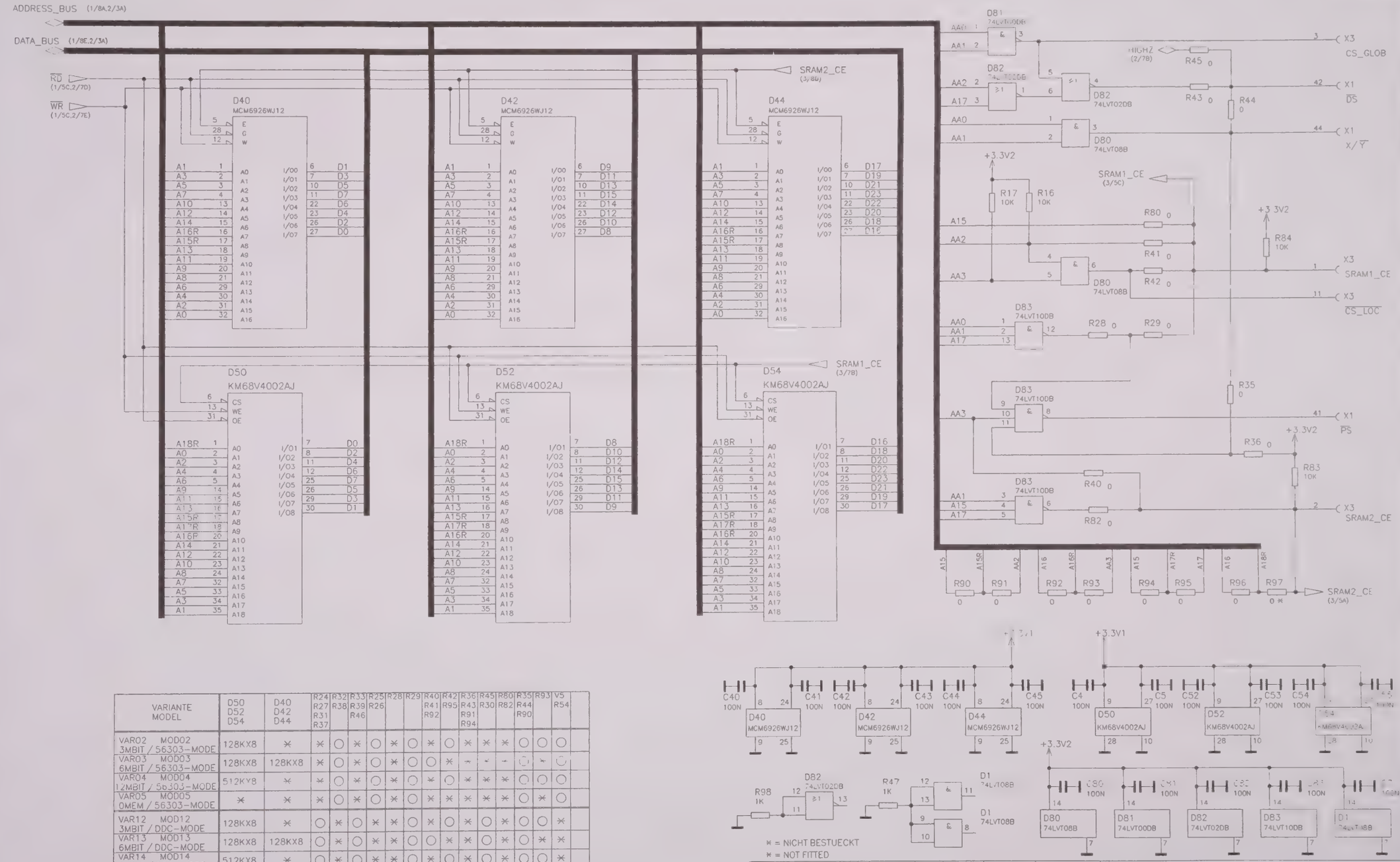
BLATT-NR 1 +

REG I.V. 1050.9008

ERSTE Z. 1050.9008.01

BEHALTEN WIR UNS ALLE RECHTE VOR


DATA_BUS
(1/8E,3/1A)
ADDRESS_BUS
(1/8A,3/1A)
D10
DSP56303PW66
D20
X2416458
D70
LT1117CS
D71
LT1117CS
D81
74LVT000B
D14
74CBT3384
D15
74CBT3384
D22
X2416458
V3
BFR193
V4
BFR193
V5
BFR193
V6
BFT92
V7
BFT92
V10
HSMS2810
BB_DSP
BB_IO
+3.3V2
+5V
+4V3
* = NICHT BESTUECKT
* = NOT FITTED
ROHDE&SCHWARZ
DSP MODULE
TOP/TOP.2
1097.3106.01 S
BLATT-NR 2 +
1CMK DATUM NAME
BEARB. GL
GEPR. GL
NORM
PLOTT 98-11-25 GROLL
AENDERUNGS-MITTEILUNG
BENENNUNG
ZEICHN.-NR.



VARIANTE MODEL	D50 D52 D54	D40 D42 D44	R24 R27 R31 R37	R32 R38	R33 R39 R46	R25 R26	R28	R29	R40 R41 R92	R42 R95	R36 R43 R91 R94	R45 R30	R80 R82	R35 R44 R90	R93	V5 R54
VAR02 MOD02 3MBIT / 56303-MODE	128KX8	*	*	O	*	O	*	O	*	O	*	*	*	O	O	O
VAR03 MOD03 6MBIT / 56303-MODE	128KX8	128KX8	*	O	*	O	*	O	O	*	*	*	*	O	*	O
VAR04 MOD04 12MBIT / 56303-MODE	512KX8	*	*	O	*	O	*	O	*	O	*	*	*	O	O	O
VAR05 MOD05 0MEM / 56303-MODE	*	*	*	O	*	O	*	O	*	*	*	*	*	O	*	O
VAR12 MOD12 3MBIT / DDC-MODE	128KX8	*	O	*	O	*	*	O	*	O	*	O	*	O	O	*
VAR13 MOD13 6MBIT / DDC-MODE	128KX8	128KX8	O	*	O	*	*	O	O	*	*	O	*	O	*	*
VAR14 MOD14 12MBIT / DDC-MODE	512KX8	*	O	*	O	*	*	O	*	O	*	O	*	O	O	*
VAR22 MOD22 3MBIT / 56002-MODE	128KX8	*	O	*	O	*	*	O	*	*	O	*	O	*	O	O
VAR23 MOD23 6MBIT / 56002-MODE	128KX8	128KX8	O	*	O	*	O	*	*	*	O	*	O	*	O	O
VAR24 MOD24 12MBIT / 56002-MODE	512KX8	*	O	*	O	*	O	O	*	*	O	*	*	*	O	O

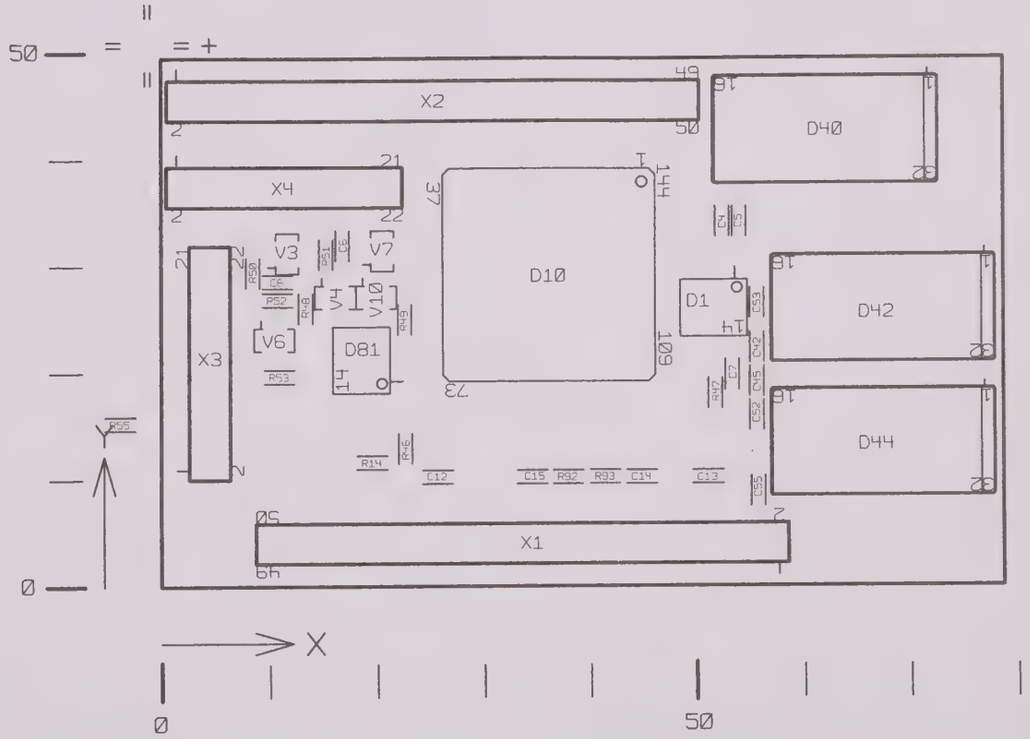
* = NICHT BESTUECKT / NOT FITTED
O = BESTUECKT/FITTED

* = NICHT BESTUECKT
* = NOT FITTED

04.01				1CMK	DATUM	NAME	BENENNUNG	
				BEARB.		GL	DSP MODULE	
				GEPR.		GL		
				NORM			TOP/TOP 3	
				PLOTT	98-11-25	GROLL		
				ROHDE&SCHWARZ			ZEICHN.-NR. 1097.3106.01 S	BLATT-NR. 3
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET CMD			REG.I.V. 1050.9008	ERSTE Z. 1050.9008.01

BEHALTEN WIR UNS ALLE RECHTE VOR

UEBER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR



DARSTELLUNG SEITE B
VIEW ON SIDE B

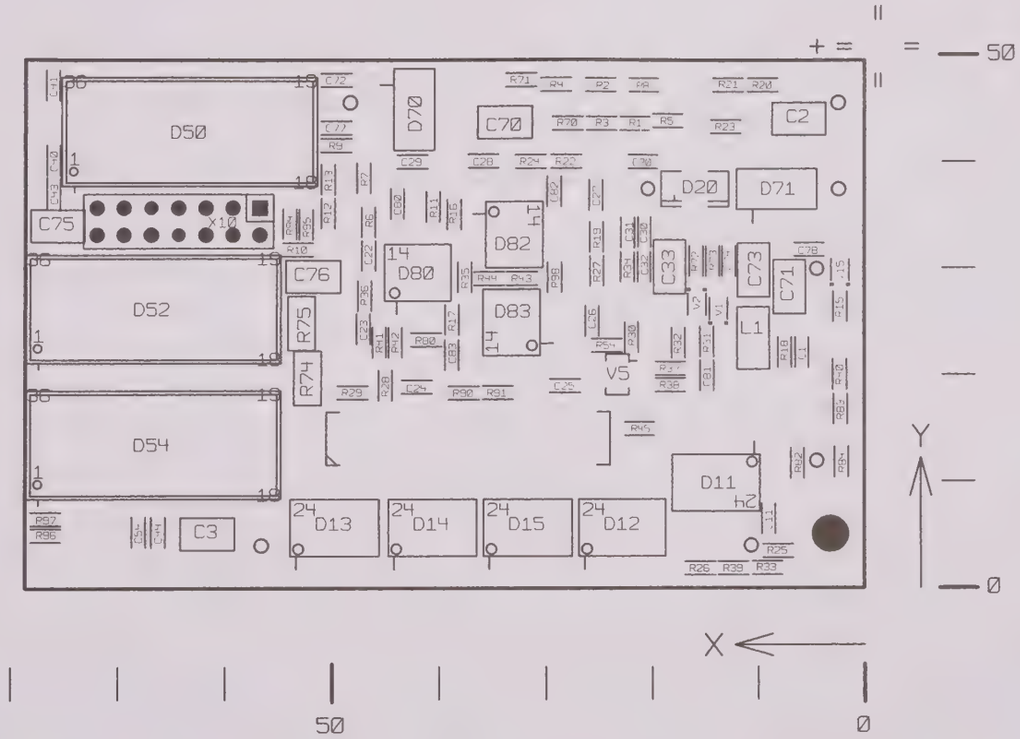
ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN UEBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

04.01				1CMK	DATUM	NAME	BENENNUNG
				BEARB.		GL	DSP MODULE
				GEPR.		GL	
				NORM			
				PLOTT	98-11-25	GROLL	
							ZEICHN.-NR. 1097.3106.01 D
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ROHDE&SCHWARZ			BLATT-NR. 1+
				ZU GERAET CMD			REG.I.V. 1050.9008 ERSTE Z. 1050.9008

UEBER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR



DARSTELLUNG SEITE A
VIEW ON SIDE A

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN UEBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
04.01			

	1CMK	DATUM	NAME
BEARB.			GL
GEPR.			GL
NORM			
PLOTT	98-11-25		GROLL

ROHDE&SCHWARZ
ZU GERAET CMD

BENENNUNG
DSP MODULE

ZEICHN.-NR.
1097.3106.01 D

BLATT-NR. 2-
V. BL.

REG.I.V. 1050.9008
ERSTE Z. 1050.9008

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
.	XX VARIANTENERKLAERUNG IDENTIFICATION OF MODELS				
C1	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C2	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C3	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C4	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..7	CERAMIC CHIP CAPACITOR				
C8	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39COG***F50ZPT	
C9	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..17	CERAMIC CHIP CAPACITOR				
C20	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C22	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..29	CERAMIC CHIP CAPACITOR				
C30	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39COG***F50ZPT	
C31	CC 180PF+-1% 50V NPO 0603 SMD-CERAMIC-CAPACITOR	1097.6305.00	MURATA	GRM39COG***F50ZPT	
C32	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C33	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C40	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..45	CERAMIC CHIP CAPACITOR				
C52	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..55	CERAMIC CHIP CAPACITOR				
C70	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C71	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C72	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C73	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C74	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C75	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C76	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C77	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C78	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C80	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..83	CERAMIC CHIP CAPACITOR				
D1	BL 74LVT08DB 4X2AND 3.3V QUAD 2-IN AND GATE	0048.3180.00	PHILIPS_SE	74LVT08(DB)	
D10	BC DSP56303PV66 SIGNPROC IC DIG SIGN PROCESSOR	0048.3500.00	MOTOROLA	DSP56303PV66 / 3J22A	
D11	BL 74CBT3384A 2X5SWITCH	1097.6457.00	TEXAS	SN74CBT3384A(DB)	
..15	10-BIT BUS SWITCH				
D20	BC X24164S8 2KX8 EEPROM IC MEMORY	2013.8937.00	ATMEL	AT24C164-10SC-2.7	
D40	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 03	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D40	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 13	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D40	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 23	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D42	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 03	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D42	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 13	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D42	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 23	1065.8402.00	SAMSUNG	KM68V1002AJ-12	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
D44	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 03	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D44	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 13	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D44	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 23	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D50	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 03	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D50	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 13	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D50	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 23	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D50	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 02	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D50	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 04	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D50	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 12	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D50	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 14	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D50	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 22	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D52	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 24	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D52	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 03	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D52	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 13	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D52	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 23	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D52	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 04	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D52	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 12	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D52	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 14	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D52	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 22	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D52	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 24	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D54	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 03	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D54	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 13	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D54	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 23	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D54	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 04	2080.3810.00	SAMSUNG	KM68V4002B-12J	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
D54	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 12	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D54	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 14	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D54	BC KM68V1002A SRAM IC MEMORY NUR VAR/ONLY MOD: 22	1065.8402.00	SAMSUNG	KM68V1002AJ-12	
D54	BC KM68V4002B-12J SRAM IC MEMORY NUR VAR/ONLY MOD: 24	2080.3810.00	SAMSUNG	KM68V4002B-12J	
D55	BL SN74CBT3257PW IC LOGIC	1097.3393.00	TEXAS_INST	(SN74)CBT3257PW	
D70	BO LT1117CSTLOWDROP+VREGL VOLTAGE REGULATOR	1036.4283.00	LINEAR_TEC	LT1117(CST)	
D71	BO LT1117CSTLOWDROP+VREGL VOLTAGE REGULATOR	1036.4283.00	LINEAR_TEC	LT1117(CST)	
D80	BL 74LVT08DB 4X2AND 3.3V QUAD 2-IN AND GATE	0048.3180.00	PHILIPS_SE	74LVT08(DB)	
D81	BL 74LVT00DB 4X2NAND 3.3V QUAD 2-IN NAND GATE	0048.3151.00	PHILIPS_SE	74LVT00DB	
D82	BL 74LVT02DB 4X2NOR 3.3V QUAD 2-IN NOR GATE	0048.3168.00	PHILIPS_SE	74LVT02DB	
D83	BL 74LVT10DB 3X3NAND 3.3V TRIPLE 3-NAND GATE	1097.6440.00	PHILIPS_SE	74LVT10(DB)	
L1	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
R1 ..11	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R12	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R13	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R14	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R15	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R16	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R17	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R18	RG 27OR +-1% TK200 0603 SMD-RESISTOR EIA0603 27OR	0010.9581.00	DRALORIC	CR 0603	
R19	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R20 ..23	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R24	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R24	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R24	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R24	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R24	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R24	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R25	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.7020.00	DRALORIC	CR 0603	
R25	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.7020.00	DRALORIC	CR 0603	
R25	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.7020.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R25	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.7020.00	DRALORIC	CR 0603	
R26	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.7020.00	DRALORIC	CR 0603	
R26	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.7020.00	DRALORIC	CR 0603	
R26	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.7020.00	DRALORIC	CR 0603	
R26	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.7020.00	DRALORIC	CR 0603	
R27	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R27	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R27	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R27	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R27	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R27	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 O OHM	
..28					
R29	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 O OHM	
..29					
..29					
..29					
R29	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R29	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R29	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R29	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R29	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R31	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R31	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R31	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R31	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R31	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R31	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R32	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R32	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 O OHM	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R32	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R32	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R33	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.7020.00	DRALORIC	CR 0603	
R33	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.7020.00	DRALORIC	CR 0603	
R33	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.7020.00	DRALORIC	CR 0603	
R33	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.7020.00	DRALORIC	CR 0603	
R33	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.7020.00	DRALORIC	CR 0603	
R33	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.7020.00	DRALORIC	CR 0603	
R34	RG 22R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6901.00	DRALORIC	CR 0603	
R35	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R35	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R35	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R35	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R35	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R35	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R35	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R36	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R36	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R36	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R37	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R37	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R37	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R37	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R37	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R37	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R38	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 O OHM	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R38	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R38	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R38	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R39	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.7020.00	DRALORIC	CR 0603	
R39	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.7020.00	DRALORIC	CR 0603	
R39	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.7020.00	DRALORIC	CR 0603	
R39	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.7020.00	DRALORIC	CR 0603	
R39	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.7020.00	DRALORIC	CR 0603	
R40	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R40	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R41	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R41	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R42	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R42	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R42	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R42	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R43	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R43	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R43	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R44	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R44	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R44	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R44	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R44	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R44	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 0 OHM	

Für diese Unterlage behalten wir uns alle Rechte vor

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R44	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R45	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R45	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R45	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R46	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	RG 0009.5357.00	DRALORIC	CR 0603	
R46	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	RG 0009.5357.00	DRALORIC	CR 0603	
R46	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	RG 0009.5357.00	DRALORIC	CR 0603	
R46	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	RG 0009.5357.00	DRALORIC	CR 0603	
R46	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	RG 0009.5357.00	DRALORIC	CR 0603	
R46	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	RG 0009.5357.00	DRALORIC	CR 0603	
R47	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R48	RG 680R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6982.00	DRALORIC	CR 0603	
R49	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R50 ..53	RG 330R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6960.00	DRALORIC	CR 0603	
R54	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R54	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R54	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R54	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R54	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R54	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R54	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R55 ..58	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R59	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R60	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R61	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R62	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R63	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R64	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R70	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R71	RG 619R +-1% TK200 0603 RESISTOR	1093.6169.00	DRALORIC	CR 0603	

Für diese Unterlage behalten wir uns alle Rechte vor.

Kennz Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R72	RG 560R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.9630.00	DRALORIC	CR 0603	
R73	RG 619R +-1% TK200 0603 RESISTOR	1093.6169.00	DRALORIC	CR 0603	
R74	RG 1,0 OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8265.00	PHILIPS_CO	RC 02	
R75	RG 1,0 OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8265.00	PHILIPS_CO	RC 02	
R80	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R80	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R82	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R82	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R83	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R84	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R90	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R90	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R90	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R90	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R90	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R90	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R90	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 05	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R91	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R91	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R91	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R92	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 13	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R92	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 03	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R93	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R93	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R93	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R93	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R93	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R93	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 0 OHM	

Für diese Unterlage behalten
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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R93	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R94	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 22	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R94	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 23	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R94	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 24	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R95	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 12	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R95	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 14	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R95	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R95	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R96	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R97	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R98	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
V1	AD BAS216 75V UDI HIGHSPEED SWITCHING DIODE	0010.9346.00	PHILIPS_SE	BAS216	
V2	AD BAS216 75V UDI HIGHSPEED SWITCHING DIODE	0010.9346.00	PHILIPS_SE	BAS216	
V3	AK BFR193 N 12V 80MA TRANSISTOR	6024.2718.00	SIEMENS	BFR193 (-F1218)	
V4	AK BFR193 N 12V 80MA TRANSISTOR	6024.2718.00	SIEMENS	BFR193 (-F1218)	
V5	AK BFR193 N 12V 80MA TRANSISTOR NUR VAR/ONLY MOD: 02	6024.2718.00	SIEMENS	BFR193 (-F1218)	
V5	AK BFR193 N 12V 80MA TRANSISTOR NUR VAR/ONLY MOD: 03	6024.2718.00	SIEMENS	BFR193 (-F1218)	
V5	AK BFR193 N 12V 80MA TRANSISTOR NUR VAR/ONLY MOD: 04	6024.2718.00	SIEMENS	BFR193 (-F1218)	
V5	AK BFR193 N 12V 80MA TRANSISTOR NUR VAR/ONLY MOD: 05	6024.2718.00	SIEMENS	BFR193 (-F1218)	
V5	AK BFR193 N 12V 80MA TRANSISTOR NUR VAR/ONLY MOD: 22	6024.2718.00	SIEMENS	BFR193 (-F1218)	
V5	AK BFR193 N 12V 80MA TRANSISTOR NUR VAR/ONLY MOD: 23	6024.2718.00	SIEMENS	BFR193 (-F1218)	
V5	AK BFR193 N 12V 80MA TRANSISTOR NUR VAR/ONLY MOD: 24	6024.2718.00	SIEMENS	BFR193 (-F1218)	
V6	AK BFT92 P 15V 25MA 5 GHZ WIDEBAND TRANSISTOR	1075.4068.00	SIEMENS	BFT92 (-F1062)	
V7	AK BFT92 P 15V 25MA 5 GHZ WIDEBAND TRANSISTOR	1075.4068.00	SIEMENS	BFT92 (-F1062)	
V10	AE HSMS2810 SCHOTTKY SCHOTTKY DIODE	0520.7340.00	HEWLETT_PA	HSMS-2810	
V15	AD BAS216 75V UDI HIGHSPEED SWITCHING DIODE	0010.9346.00	PHILIPS_SE	BAS216	
X1	FP BUCHSENLEISTE 50P. SMD CONNECTOR 50P SMD	FP 1065.8702.00	3M	150250-2020TB	
X2	FP BUCHSENLEISTE 50P. SMD CONNECTOR 50P SMD	FP 1065.8702.00	3M	150250-2020TB	
X3	FP BUCHSENLEISTE 22P.SMD CONNECTOR	FP 1097.6157.00	3M	150222-2020TB	
X4	FP BUCHSENLEISTE 22P.SMD CONNECTOR	FP 1097.6157.00	3M	150222-2020TB	

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Kennz Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
X10	FP STECKERLEISTE 14POL. CONNECTOR 14P	FP 6040.4605.00			

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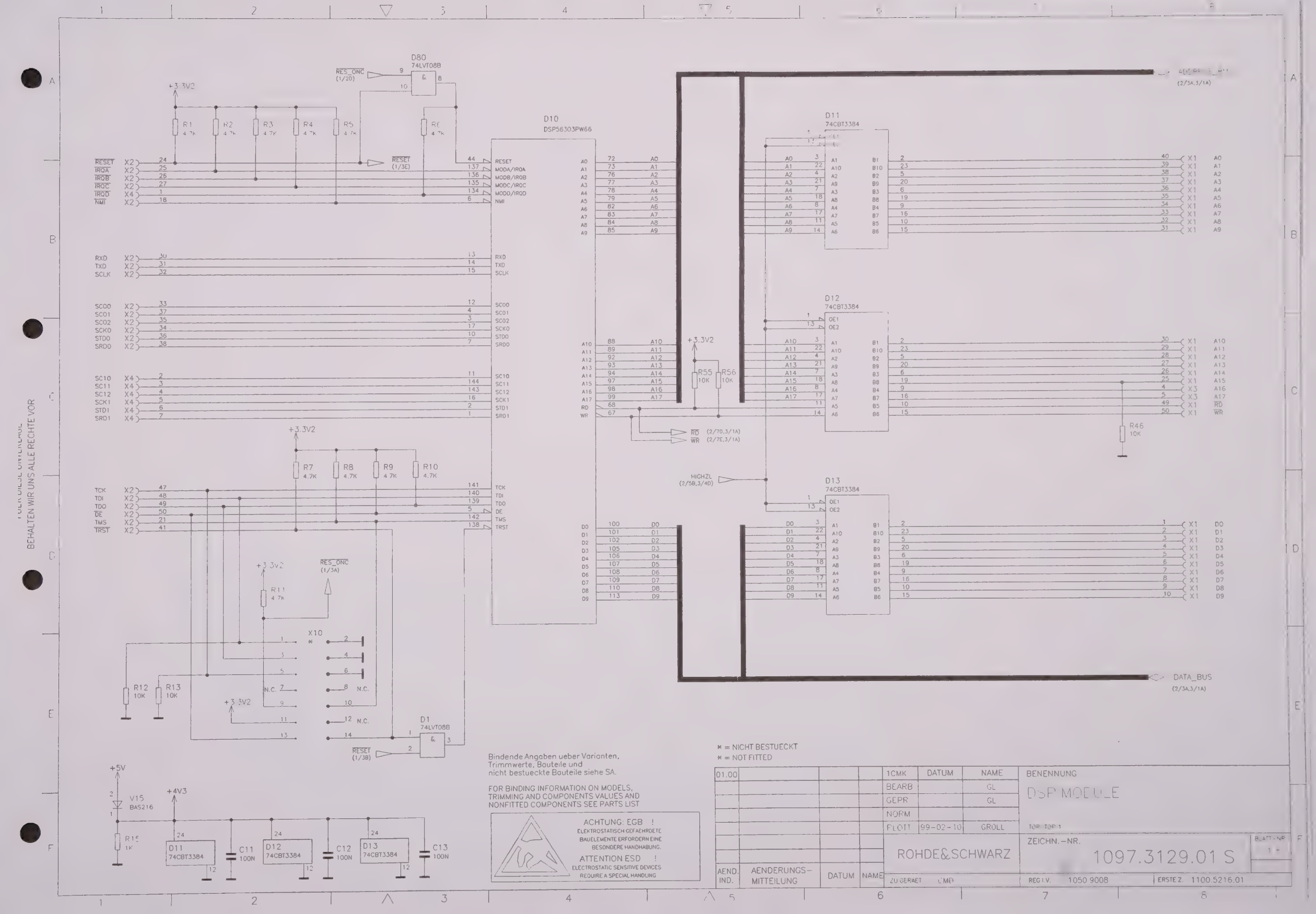


Bindende Angaben ueber Varianten, Trimmwerte, Bauteile und nicht bestueckte Bauteile siehe SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST

ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

× = NICHT BESTUECKT
× = NOT FITTED

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
01.00			

	1CMK	DATUM	NAME
BEARB			GL
GEPR			GL
NORM			
FLOTT	99-02-10		GROLL

BENENNUNG: DSP MODULE

TOP TOP 1

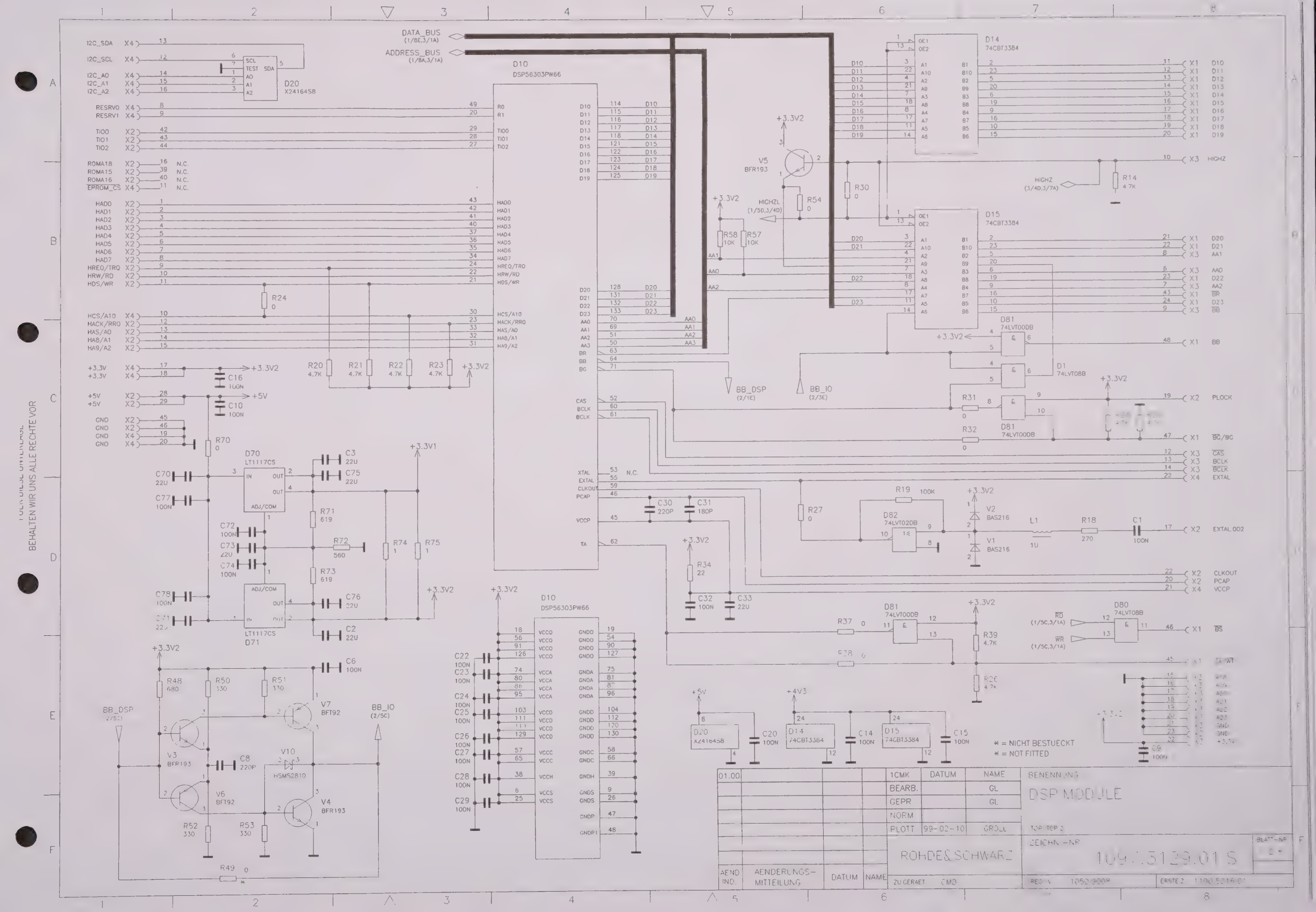
ROHDE&SCHWARZ

ZEICHN.-NR. 1097.3129.01 S

BLATT-NR. 1 -

ZUGERAET CMD | REG.V. 1050 9008 | ERSTE Z. 1100.5216.01

BEHALTEN WIR UNS ALLE RECHTE VOR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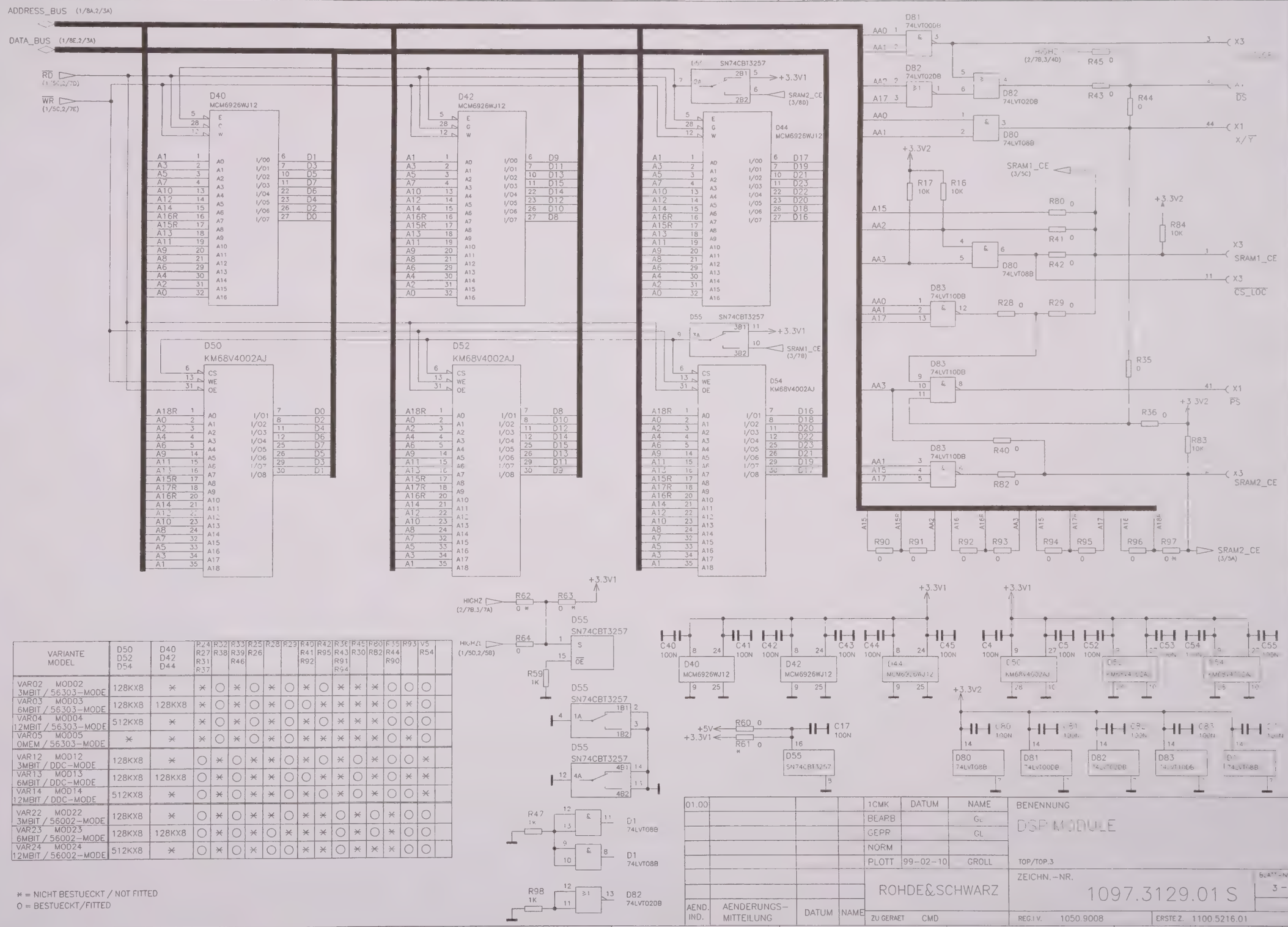
(1/8E,3/1A)
ADDRESS_BUS
(1/8A,3/1A)
D10
DSP56303PW66
D20
X24164S8
D14
74CBT3384
D15
74CBT3384
D81
74LVT00DB
D1
74LVT08B
D82
74LVT02DB
D80
74LVT08B
D70
LT1117CS
D71
LT1117CS
V5
BFR193
V2
BAS216
V1
BAS216
V7
BFT92
V6
BFT92
V3
BFR193
V4
BFR193
V10
HSMS2810
BB_DSP
(2/1E)
BB_IO
(2/3E)
HIGHZ
(3/4D,3/7A)
HIGHZL
(1/50,3/4D)
WR
(1/5C,3/1A)
RD
(1/5C,3/1A)
+3.3V2
+3.3V1
+5V
+4V3
* = NICHT BESTUECKT
* = NOT FITTED
ROHDE&SCHWARZ
DSP MODULE
1093.3129.01 S

BEHALTEN WIR UNS ALLE RECHTE VOR

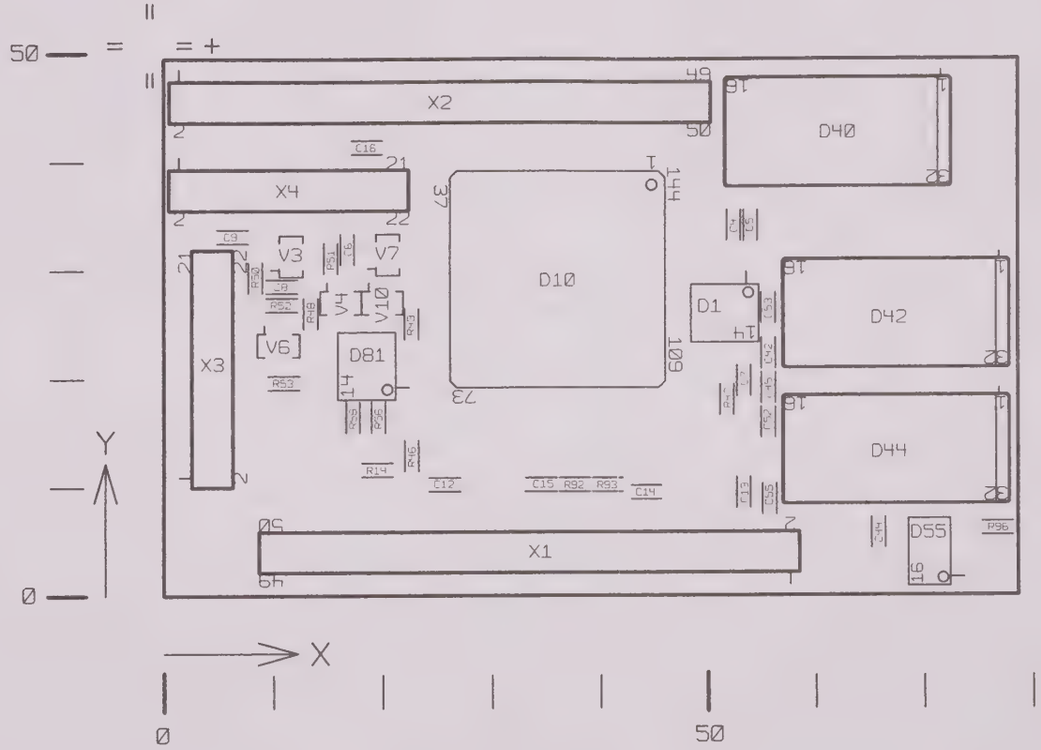


VARIANTE MODEL	D50 D52 D54	D40 D42 D44	R24 R27 R31 R37	R32 R38	R33 R39 R46	R25 R26	R28	R23	R40 R41 R92	R42 R95	R36 R43 R91 R94	R45 R30	R80 R82	R35 R44 R90	R93	V5 R54	
VAR02 MOD02 3MBIT / 56303-MODE	128KX8	*	*	O	*	O	*	O	*	O	*	*	*	O	O	O	
VAR03 MOD03 6MBIT / 56303-MODE	128KX8	128KX8	*	O	*	O	*	O	O	*	*	*	*	O	*	O	
VAR04 MOD04 12MBIT / 56303-MODE	512KX8	*	*	O	*	O	*	O	*	O	*	*	*	O	O	O	
VAR05 MOD05 0MEM / 56303-MODE	*	*	*	O	*	O	*	O	*	*	*	*	*	O	*	O	
VAR12 MOD12 3MBIT / DDC-MODE	128KX8	*	O	*	O	*	*	O	*	O	*	O	*	O	O	*	
VAR13 MOD13 6MBIT / DDC-MODE	128KX8	128KX8	O	*	O	*	*	O	O	*	*	O	*	O	*	*	
VAR14 MOD14 12MBIT / DDC-MODE	512KX8	*	O	*	O	*	*	O	*	O	*	O	*	O	O	*	
VAR22 MOD22 3MBIT / 56002-MODE	128KX8	*	O	*	O	*	*	O	*	*	O	*	O	*	O	O	
VAR23 MOD23 6MBIT / 56002-MODE	128KX8	128KX8	O	*	O	*	O	*	*	*	O	*	O	*	O	O	
VAR24 MOD24 12MBIT / 56002-MODE	512KX8	*	O	*	O	*	O	O	*	*	O	*	*	*	O	O	

* = NICHT BESTUECKT / NOT FITTED
O = BESTUECKT/FITTED

01.00				1CMK	DATUM	NAME	BENENNUNG
				BEARB		GL	DSP MODULE
				GEPR		GL	
				NORM			TOP/TOP.3
				PLOTT	99-02-10	GROLL	
				ROHDE&SCHWARZ			ZEICHN.-NR. 1097.3129.01 S
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET CMD			BLATT-NR 3
				REG.I.V. 1050.9008			ERSTE Z. 1100.5216.01

HIER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR



DARSTELLUNG SEITE B
VIEW ON SIDE B

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN UEBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
01.00			

	1.CMK	DATUM	NAME
BEARB.			GL
GEPR.			GL
NORM			
PLOTT	99-02-09		GROLL

ROHDE&SCHWARZ
ZU GERAET CMD

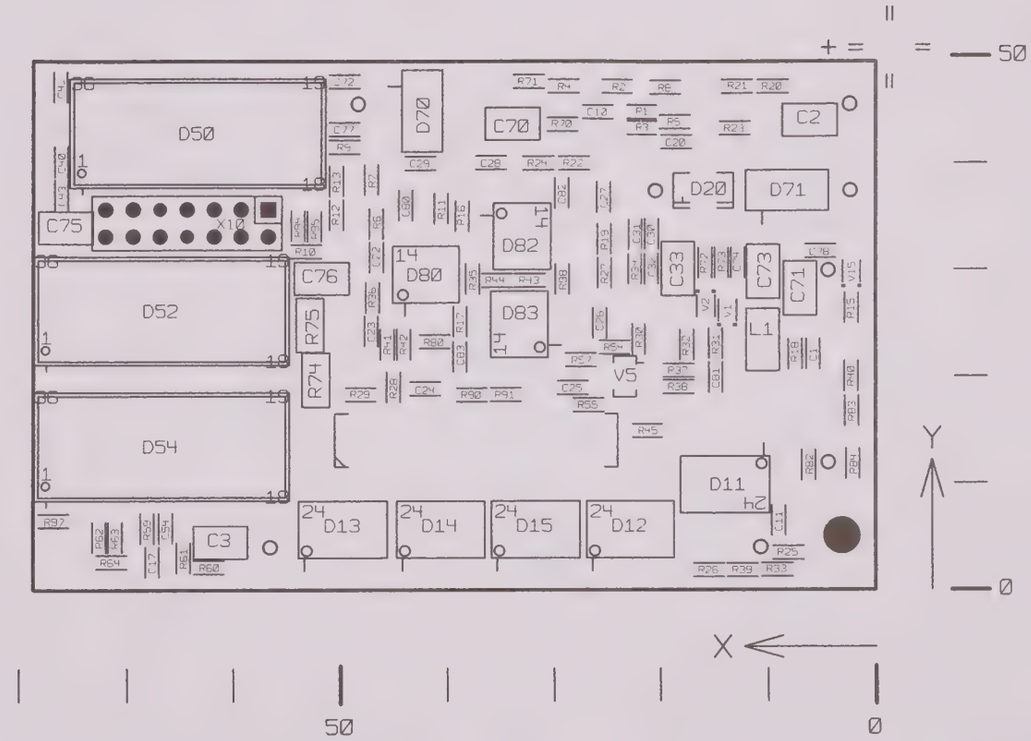
BENENNUNG
DSP MODULE

ZEICHN.-NR.
1097.3129.01 D

BL.ATT-NR. 1+
V. BL.

REG.I.V. 1050.9008
ERSTE Z. 1100.5216

FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR



DARSTELLUNG SEITE A
VIEW ON SIDE A

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN UEBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
01.00			

	1CMK	DATUM	NAME
BEARB.			GL
GEPR.			GL
NORM			
PLOTT	99-02-09		GROLL

ROHDE&SCHWARZ
ZU. GERAET CMD

BENENNUNG
DSP MODULE

ZEICHN.-NR.
1097.3129.01 D

BLATT-NR. 2-
V. BL.

REG.I.V. 1050.9008
ERSTE Z. 1100.5216

Kennz. Comp No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
.	XX VARIANTENERKLAERUNG IDENTIFICATION OF MODELS				
C1	CE 2,2UF +-10% 25V 6032 TANTALUM SMD-CAPACITOR	CE 0007.7223.00	SPRAGUE	293D 225 X9 025 C2W	
C2	CE 2,2UF +-10% 25V 6032 TANTALUM SMD-CAPACITOR	CE 0007.7223.00	SPRAGUE	293D 225 X9 025 C2W	
C3	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C4	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C5 ..8	CC 22PF+-1% 50VNP0 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C9	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C10 ..13	CC 68PF+-1% 50VNP0 0603 SMD-CERAMIC-CAPACITOR	0009.9746.00	MURATA	GRM39C0G***F50ZPT	
C14	CC 18PF+-1% 50VNP0 0603 SMD-CERAMIC-CAPACITOR	0048.3622.00	MURATA	GRM39C0G***F50ZPT	
C15 ..17	CC 470PF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4896.00	MURATA	GRM39X7R***K5C500PT*	
C18 ..21	CC 3,9PF0,1PF50V NP0 0603 SMD-CERAMIC-CAPACITOR	0009.4509.00	MURATA	GRM39C0G***B50ZPT	
C22 ..27	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C28	CC 22UF+80-20% 10V 1210 CERAMIC CAPACITOR	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
C29	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C30	CC 470PF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4896.00	MURATA	GRM39X7R***K5C500PT*	
C31 ..85	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
C100	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	1097.6292.00	PHILIPS_CO	2238 786 16649	
D1	BL 74LVC74DB 2XD-FF IC DUAL D-TYPE FLIP FLOP	1104.2563.00	PHILIPS_SE	74LVC74(DB)	
D2 ..8	BL 74LVC377DB 8XD-FF EN IC OCTAL D-FF	0048.4164.00	PHILIPS_SE	(74)LVC377(DB)	
D9 ..12	BC CY7C4225-15 1KX18 FIFO IC MEMORY FIFO	1100.4855.00	IDT	IDT72V225L(A)15TF	
D13	BC X24164S8 2KX8 EEPROM IC MEMORY	2013.8937.00	ATMEL	AT24C164-10SC-2.7	
D50	BC EPM7128STC100-10 EPLD IC PROG,LOGIC	1100.4649.00	ALTERA	EPM7128STC100-10	
L1	LD 100UH 10% 0,06A 1210 SMD-INDUCTOR	LD 0007.9261.00	SIEMENS	B82422-A1104-J(K)100	
L2	LD 100UH 10% 0,06A 1210 SMD-INDUCTOR	LD 0007.9261.00	SIEMENS	B82422-A1104-J(K)100	
N4 ..7	BJ MX566AKCWG 1X12-DAC 12-BIT D/A CONVERTER	1100.4603.00	MAXIM	MX566AKCWG	
N40	BO AD825 AR FET OPAMP IC FET OPAMP	1100.2023.00	ANALOG_DEV	AD825AR	
N41	BO AD825 AR FET OPAMP IC FET OPAMP	1100.2023.00	ANALOG_DEV	AD825AR	
N42	BO OP297GS 2X PREC OPAMP IC DUALOPAMP	6071.9467.00	ANALOG_DEV	OP297GS	
N50	BO AD822BR 2XFET OPAMP IC DUAL OPAMP	2043.0934.00	ANALOG_DEV	AD822BR	
N60	BO AD825 AR FET OPAMP IC FET OPAMP	1100.2023.00	ANALOG_DEV	AD825AR	
N61	BO AD825 AR FET OPAMP IC FET OPAMP	1100.2023.00	ANALOG_DEV	AD825AR	
N62	BO OP297GS 2X PREC OPAMP IC DUALOPAMP	6071.9467.00	ANALOG_DEV	OP297GS	
R1	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R2	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R3 ..6	RG 182 OHM+-1%TK200 0603 SMD-RESISTOR EIA0603	0009.9130.00	DRALORIC	CR 0603	
R7 ..10	RG 10R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5328.00	DRALORIC	CR 0603	

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Kennz. Comp No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R11	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R12	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R13	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R14	RG 47K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7072.00	DRALORIC	CR 0603	
R15	RG 47K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7072.00	DRALORIC	CR 0603	
R16	RG 47K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7072.00	DRALORIC	CR 0603	
R17	RG 47K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7072.00	DRALORIC	CR 0603	
R18 ..25	RG 51,0 OHM+-1%TK200 0603 SMD-RESISTOR EIA0603	0009.9030.00	DRALORIC	CR 0603	
R26 ..29	RG 10,0KOH+-0,1%TK25 1206 SMD-RESISTOR	0009.7666.00	PHILIPS_CO	MPC 01	
R30	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R31	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R32	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R33	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R34	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R35	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R36	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R37	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R38	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R39	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R40	RG 10R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5328.00	DRALORIC	CR 0603	
R41	RG 10R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5328.00	DRALORIC	CR 0603	
R42	RG 2K2 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7008.00	DRALORIC	CR 0603	
R43	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R44	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R45	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R46 ..51	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R52	RG 470R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R53 ..56	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R57	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R72	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R73	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R120	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
V1	AE BZX284-B3V9 0,4W ZDI ZENER DIODE	0048.3880.00	PHILIPS_SE	BZX284-B3V9	
V2	AE BZX284-B3V9 0,4W ZDI ZENER DIODE	0048.3880.00	PHILIPS_SE	BZX284-B3V9	
V3	AD BAS216 75V UDI HIGHSPEED SWITCHING DIODE	0010.9346.00	PHILIPS_SE	BAS216	
V4	AD BAS216 75V UDI HIGHSPEED SWITCHING DIODE	0010.9346.00	PHILIPS_SE	BAS216	
V5 ..9	AM BF998 N-D DG MOSF DUAL GATE MOSFET	1051.4522.00	SIEMENS	BF998(-F1129)	
V10	AE HSMS2810 SCHOTTKY SCHOTTKY DIODE	0520.7340.00	HEWLETT_PA	HSMS-2810	

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Kennz Comp No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
V11	AE BZX284-B2V7 0,4W ZDI ZENER DIODE	0048.3345.00	PHILIPS_SE	BZX284-B2V7	
V12	AK BFT92 P 15V 25MA 5 GHZ WIDEBAND TRANSISTOR	1075.4068.00	SIEMENS	BFT92 (-F1062)	
X430	FP BUCHSENLEISTE 34P.GER CONNECTOR	FP 1043.9958.00	3M	150234-2020TB	
X431	FP BUCHSENLEISTE 50P. SMD CONNECTOR 50P SMD	FP 1065.8702.00	3M	150250-2020TB	
X432	FP BUCHSENLEISTE 34P.GER CONNECTOR	FP 1043.9958.00	3M	150234-2020TB	

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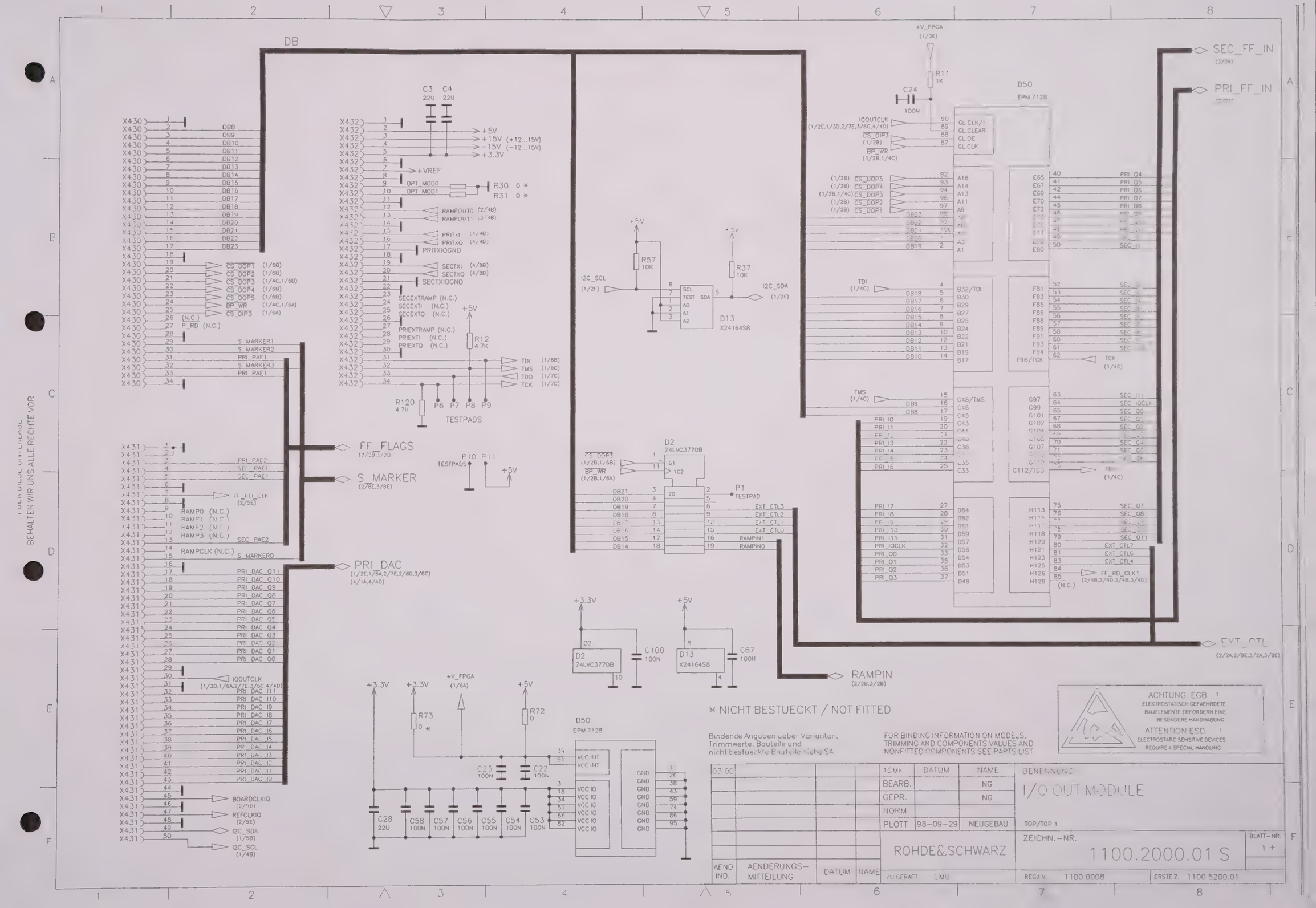
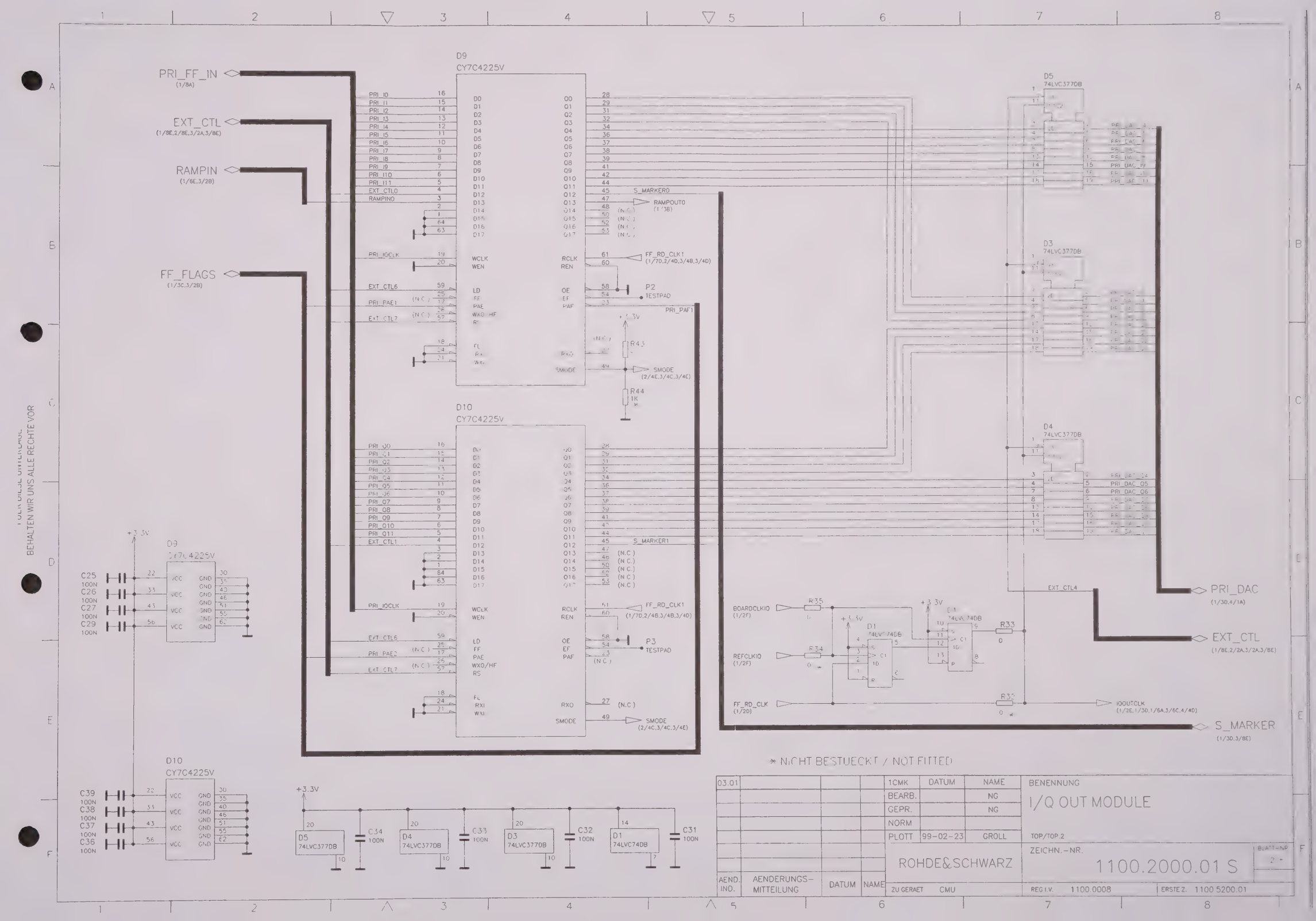
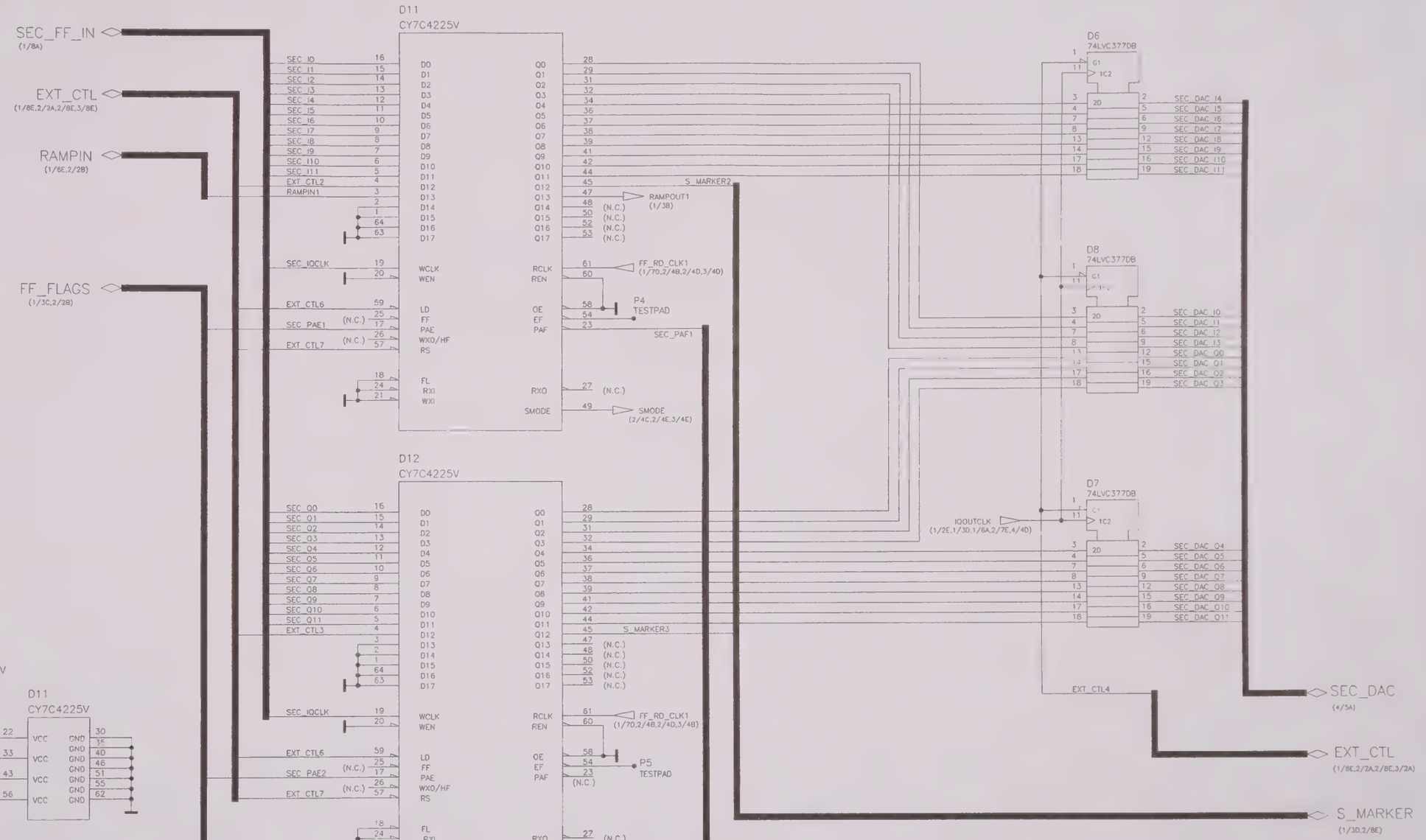

DB
SEC_FF_IN
PRI_FF_IN
EXT_CTL
RAMPIN
FF_FLAGS
S_MARKER
PRI_DAC
TESTPADS
D50
EPM 7128
D13
X24164S8
D2
74LVC377DB
P1
TESTPAD
R11
1K
C24
100N
R57
10K
R37
10K
R12
4.7K
R120
4.7K
C3
22U
C4
22U
R30
R31
R73
R72
C23
100N
C22
100N
C28
22U
C58
100N
C57
100N
C56
100N
C55
100N
C54
100N
C53
100N
C100
100N
C67
100N
+V_FPGA
(1/3E)
+V_FPGA
(1/6A)
+5V
+3.3V
+15V (+12...15V)
-15V (-12...15V)
+VREF
OPT_MOD0
OPT_MOD1
RAMPOUT0 (2/4B)
RAMPOUT1 (3/4B)
PRITXI (4/4B)
PRITXQ (4/4D)
PRITXIQGND
SECTXI (4/8B)
SECTXQ (4/8D)
SECTXIQGND
SECEXTRAMP (N.C.)
SECEXTI (N.C.)
SECEXTQ (N.C.)
PRIEXTRAMP (N.C.)
PRIEXTI (N.C.)
PRIEXTQ (N.C.)
TDI (1/6B)
TMS (1/6C)
TDO (1/7C)
TCK (1/7C)
CS_DOP1 (1/6B)
CS_DOP2 (1/6B)
CS_DOP3 (1/4C,1/6B)
CS_DOP4 (1/6B)
CS_DOP5 (1/6B)
BP_WR (1/4C,1/6A)
CS_DIP3 (1/6A)
P_RD (N.C.)
S_MARKER1
S_MARKER2
PRI_PAF1
S_MARKER3
PRI_PAE1
PRI_PAE2
SEC_PAF1
SEC_PAE1
FF_RD_CLK (2/5E)
RAMP0 (N.C.)
RAMP1 (N.C.)
RAMP2 (N.C.)
RAMP3 (N.C.)
SEC_PAE2
RAMPCLK (N.C.)
S_MARKER0
PRI_DAC_Q11
PRI_DAC_Q10
PRI_DAC_Q9
PRI_DAC_Q8
PRI_DAC_Q7
PRI_DAC_Q6
PRI_DAC_Q5
PRI_DAC_Q4
PRI_DAC_Q3
PRI_DAC_Q2
PRI_DAC_Q1
PRI_DAC_Q0
IOOUTCLK (1/3D,1/6A,2/7E,3/6C,4/4D)
PRI_DAC_I11
PRI_DAC_I10
PRI_DAC_I9
PRI_DAC_I8
PRI_DAC_I7
PRI_DAC_I6
PRI_DAC_I5
PRI_DAC_I4
PRI_DAC_I3
PRI_DAC_I2
PRI_DAC_I1
PRI_DAC_I0
BOARDCLKIO (2/5D)
REFCLKIO (2/5E)
I2C_SDA (1/5B)
I2C_SCL (1/4B)
I2C_SCL (1/2F)
I2C_SDA (1/2F)
IOOUTCLK (1/2E,1/3D,2/7E,3/6C,4/4D)
CS_DIP3 (1/2B)
BP_WR (1/2B,1/4C)
CS_DOP5 (1/2B)
CS_DOP4 (1/2B)
CS_DOP3 (1/2B,1/4C)
CS_DOP2 (1/2B)
CS_DOP1 (1/2B)
TDI (1/4C)
TMS (1/4C)
TCK (1/4C)
TDO (1/4C)
FF_RD_CLK1 (2/4B,2/4D,3/4B,3/4D)
EXT_CTL3
EXT_CTL2
EXT_CTL1
EXT_CTL0
RAMPIN1
RAMPIN0
VCC INT
VCC IO
GND
* NICHT BESTUECKT / NOT FITTED
Bindende Angaben ueber Varianten, Trimmwerte, Bauteile und nicht bestueckte Bauteile siehe SA
FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST
ACHTUNG. EGB
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG
ATTENTION ESD
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING
03.00
1CMK
DATUM
NAME
BEARB.
NG
GEPR.
NG
NORM
PLOTT
98-09-29
NEUGEBAU
BENENNUNG
I/Q OUT MODULE
TOP/TOP 1
ROHDE&SCHWARZ
ZEICHN.-NR.
1100.2000.01 S
BLATT-NR.
1 +
AEND IND.
AENDERUNGS-MITTEILUNG
DATUM
NAME
ZU GERAET CMU
REG.I.V. 1100 0008
ERSTE Z. 1100 5200.01



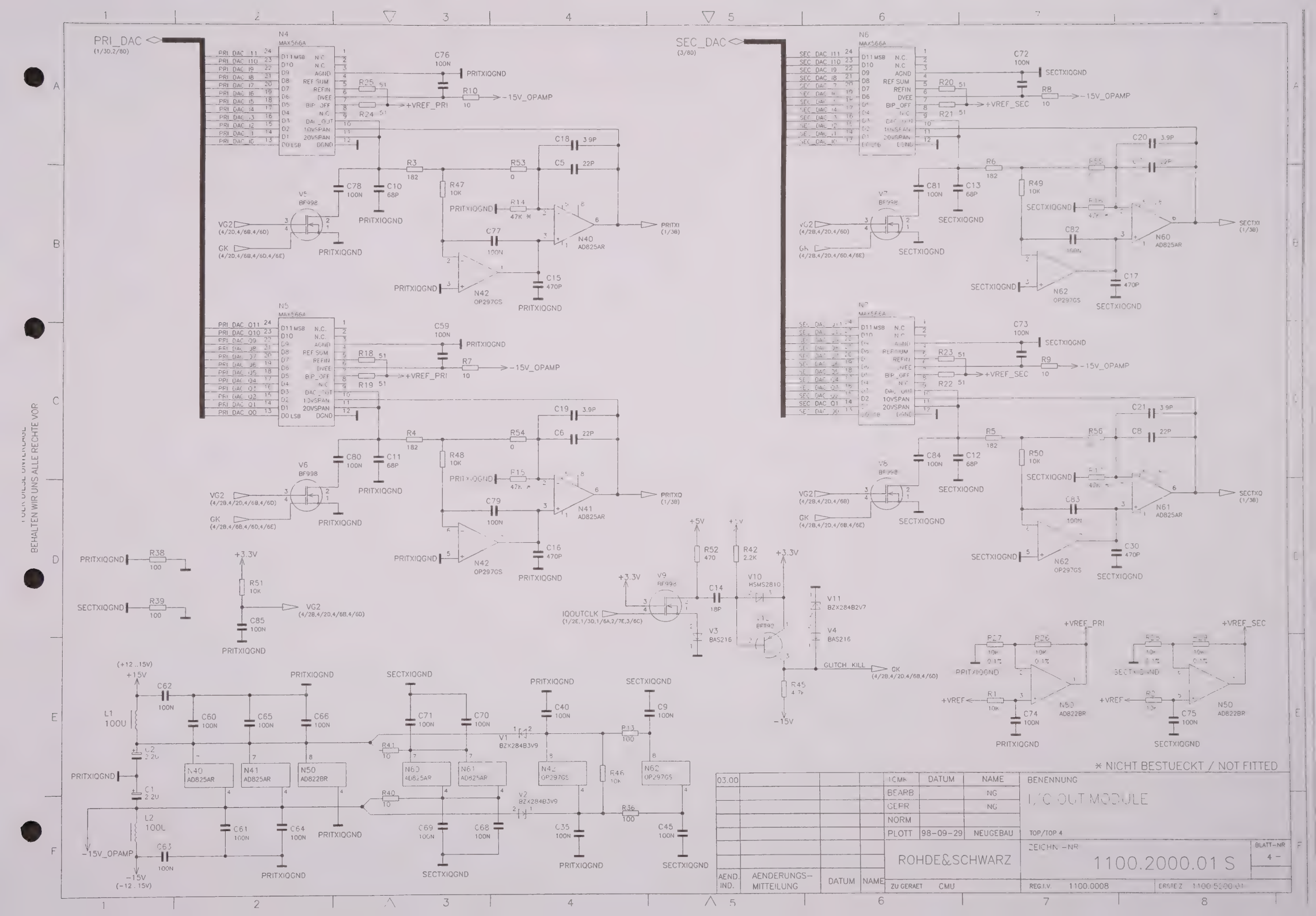
PRI_FF_IN
(1/8A)
EXT_CTL
(1/8E,2/8E,3/2A,3/8E)
RAMPIN
(1/6E,3/2B)
FF_FLAGS
(1/3C,3/2B)
D9
CY7C4225V
D10
CY7C4225V
D5
74LVC377DB
D3
74LVC377DB
D4
74LVC377DB
D1
74LVC74DB
S_MARKER0
RAMPOUT0
(1/3B)
FF_RD_CLK1
(1/7D,2/4D,3/4B,3/4D)
P2
TESTPAD
PRI_PAF1
R43
SMODE
(2/4E,3/4C,3/4E)
R44
1K
S_MARKER1
FF_RD_CLK1
(1/7D,2/4B,3/4B,3/4D)
P3
TESTPAD
SMODE
(2/4C,3/4C,3/4E)
PRI_DAC
(1/3D,4/1A)
EXT_CTL
(1/8E,2/2A,3/2A,3/8E)
S_MARKER
(1/3D,3/8E)
BOARDCLKIO
(1/2F)
REFCLKIO
(1/2F)
FF_RD_CLK
(1/2D)
IOOUTCLK
(1/2E,1/3D,1/6A,3/6C,4/4D)
EXT_CTL4
R35
R34
R33
R32
C25
C26
C27
C29
C39
C38
C37
C36
100N
+3.3V
D5
74LVC377DB
D4
74LVC377DB
D3
74LVC377DB
D1
74LVC74DB
C34
C33
C32
C31
* NICHT BESTUECKT / NOT FITTED
03.01
1CMK
DATUM
NAME
BEARB.
NG
GEPR.
NG
NORM
PLOTT
99-02-23
GROLL
BENENNUNG
I/Q OUT MODULE
TOP/TOP.2
ROHDE&SCHWARZ
ZEICHN.-NR.
1100.2000.01 S
BLATT-NR
AEND. IND.
AENDERUNGS-MITTEILUNG
DATUM
NAME
ZU GERAET
CMU
REG.I.V.
1100.0008
ERSTE Z.
1100 5200.01

DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR

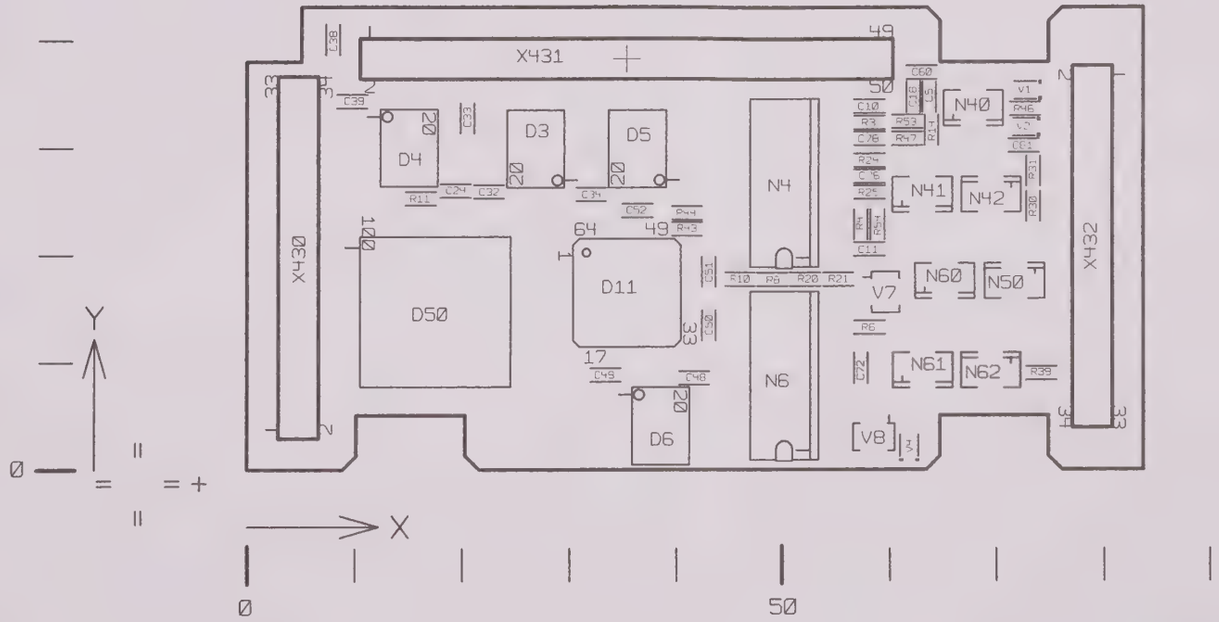


* NICHT BESTUECKT / NOT FITTED

07.00				ICM	DATUM	NAME	BENENNUNG
				BEARB.		NG	I/Q OUT MODULE
				GEPR.		NG	
				NORM			
				PLOTT	98-09-29	NEUGEBAU	TOP/TOP.3
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ROHDE&SCHWARZ			ZEICHN.-NR. 1100.2000.01 S
				ZU GERAET CMU			REG I V. 1100.0008 ERSTE Z. 1100.5200.01


PRI_DAC
(1/30,2/80)
SEC_DAC
(3/80)
N4
MAX566A
N5
N6
N7
C76 100N
C59 100N
C72 100N
C73 100N
PRITXIOGND
SECTXIOGND
R25 51
R18 51
R20 51
R23 51
+VREF_PRI
+VREF_SEC
R10 10
R7 10
R8 10
R9 10
-15V_OPAMP
R3 182
R4 182
R6 182
R5 182
R53 0
R54 0
C18 3.9P
C5 22P
C19 3.9P
C6 22P
C20 3.9P
C21 3.9P
C78 100N
C10 68P
C80 100N
C11 68P
C81 100N
C13 68P
C84 100N
C12 68P
R47 10K
R48 10K
R49 10K
R50 10K
V5 BF998
V6 BF998
V7 BF998
V8 BF998
VG2
(4/20,4/68,4/60)
GK
(4/20,4/68,4/60,4/6E)
(4/28,4/20,4/68,4/60)
(4/28,4/20,4/68,4/6E)
R14 47K *
R15 47K *
C77 100N
C79 100N
C82 100N
C83 100N
N40 AD825AR
N41 AD825AR
N60 AD825AR
N61 AD825AR
N42 OP297GS
N62 OP297GS
C15 470P
C16 470P
C17 470P
C30 470P
PRITXI
(1/38)
PRITXQ
(1/38)
SECTXI
(1/38)
SECTXQ
(1/38)
R38 100
R39 100
R51 10K
C85 100N
R52 470
R42 2.2K
C14 18P
V9 BF998
V10 HSMS2810
V11 BZX284B2V7
V3 BAS216
V4 BAS216
IQOUTCLK
(1/2E,1/30,1/6A,2/7E,3/6C)
GLITCH_KILL
CK
(4/28,4/20,4/68,4/60)
R45 4.7K
+3.3V
+5V
-15V
R27 10K 0.1%
R26 10K 0.1%
R1 10K
C74 100N
R2 10K
C75 100N
N50 AD822BR
+VREF
(+12 ..15V)
C62 100N
C60 100N
C65 100N
C66 100N
C71 100N
C70 100N
C40 100N
C9 100N
L1 100U
C2 2.2U
C1 2.2U
L2 100L
C61 100N
C64 100N
C63 100N
C69 100N
C68 100N
C35 100N
C45 100N
V1 BZX284B3V9
V2 BZX284B3V9
R41 10
R40 10
R33 100
R36 100
R46 10K
-15V_OPAMP
-15V
(-12 .. 15V)
* NICHT BESTUECKT / NOT FITTED
ROHDE&SCHWARZ
BENENNUNG
I/Q OUT MODULE
TOP/TOP 4
ZEICHN.-NR
1100.2000.01 S
BLATT-NR
4
ZU GERAET CMU
REG.NR. 1100.0008
ERSTE Z 1100.5200.01
NAME DATUM
BEARB NG
GEPR NG
NORM
PLOTT 98-09-29 NEUGEBAU
AENDERUNGS-MITTEILUNG
AEND. IND.
03.00
DIESE UNTERLAGEN BEHALTEN WIR UNS ALLE RECHTE VOR

AUCH DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR



DARSTELLUNG SEITE B
VIEW ON SIDE B

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN UEBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
03.00			

	1CMK	DATUM	NAME
BEARB.			NG
GEPR.			NG
NORM			
PLOTT	98-09-29		NEUGEBAU

ROHDE&SCHWARZ
ZU GERAET CMU

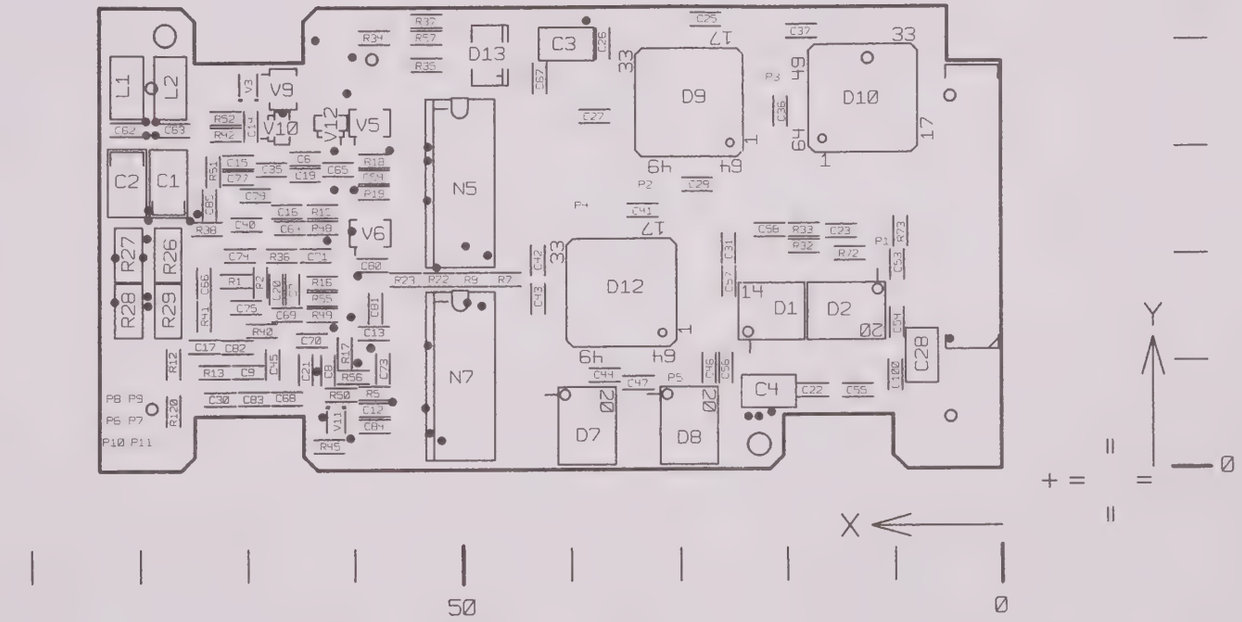
BENENNUNG
I/Q OUT MODULE

ZEICHN.-NR.
1100.2000.01 D

BLATT-NR. 1+
V. BL.

REG.I.V. 1100.0008
ERSTE Z. 1100.5200

FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR



DARSTELLUNG SEITE A
VIEW ON SIDE A

ACHTUNG: EGBI
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
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03.00			

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ROHDE&SCHWARZ
ZU GERAET CMU

BENENNUNG
I/Q OUT MODULE

ZEICHN.-NR.
1100.2000.01 D

BLATT-NR. 2-
V. BL.

REG.I.V. 1100.0008
ERSTE Z. 1100.5200

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
.	XX VARIANTENERKLAERUNG IDENTIFICATION OF MODELS				
C1	CC 10NF+-10% 50VHDK 0603	CC 0009.4844.00	MURATA	GRM39X7R***K5C50OPT*	
..4	SMD-CERAMIC-CAPACITOR				
C5	CC 10NF+-1% 50V NPO 1210	0010.3002.00	VITRAMON	VJ1210A103FXAT	
	SMD-CERAMIC CAPACITOR				
C6	CC 470NF+-10%50V X7R 1812	CC 0007.7498.00	AVX	1812 5C 474KA TOOF	
	CERAMIC CHIP CAPACITOR				
C7	CE 10UF +-10% 25V 7343	CE 0007.7246.00	SPRAGUE	293D 106 X9 025 D2W	
	TANTALUM SMD-CAPACITOR				
C8	CE 10UF +-10% 25V 7343	CE 0007.7246.00	SPRAGUE	293D 106 X9 025 D2W	
	TANTALUM SMD-CAPACITOR				
C9	CC 15PF+-1% 50VNPO 0603	0009.8227.00	MURATA	GRM39COG***F5OZPT	
	SMD-CERAMIC-CAPACITOR				
C10	CC 10NF+-1% 50V NPO 1210	0010.3002.00	VITRAMON	VJ1210A103FXAT	
	SMD-CERAMIC CAPACITOR				
C11	CC 56PF+-1% 50VNPO 0603	1093.6417.00	MURATA	GRM39COG***F5OZPT	
	SMD CERAMIK CAPACITOR				
C12	CC 56PF+-1% 50VNPO 0603	1093.6417.00	MURATA	GRM39COG***F5OZPT	
	SMD CERAMIK CAPACITOR				
C13	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C14	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C15	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
..29	CERAMIC CHIP CAPACITOR				
C30	CC 150NF+-10%50V X7R 1210	CC 0007.7446.00	PHILIPS_CO	2222 592 16643	
	CERAMIC CHIP CAPACITOR				
C31	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C32	CC 100NF+-10%16V HDK 0603	1097.6292.00	PHILIPS_CO	2238 786 16649	
	CERAMIC CHIP CAPACITOR				
C33	CC 22UF+80-20% 10V 1210	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
	CERAMIC CAPACITOR				
C34	CC 22UF+80-20% 10V 1210	1097.6563.00	TAIYO_JUDE	LMK 325 F 226 ZN	
..39	CERAMIC CAPACITOR				
C40	CC 2,2NF+-1% 50V NPO 1206	0010.2964.00	MURATA	GRM42-6COG222F5OPT	
	SMD-CERAMIC CAPACITOR				
C41	CC 10PF+-0,1 50V NPO 0603	CC 0009.4567.00	MURATA	GRM39COG***B5OZPT	
	SMD-CERAMIC-CAPACITOR				
D1	BC HM628512L 512KX8 SRAM	2068.9193.00	SAMSUNG	KM684000(A/B)LG-7	
	IC STATIC RAM 512KX8				
D2	BC HM628512L 512KX8 SRAM	2068.9193.00	SAMSUNG	KM684000(A/B)LG-7	
	IC STATIC RAM 512KX8				
D3	BJ CS4215 16B.AD/DAC	1051.4539.00	CRYSTAL	CS4215-KL	
	IC AD/DA-CONVERTER				
D4	BL PC74HCT14T 6XINV.SCHM	BL 0007.6204.00	PHILIPS_SE	(PC)74HCT14(D/T)	
	INV. SCHMITT-TRIGGER				
G1	EO 24,576MHZ QUARZOSZ	1075.5764.00	SEIKO	SG-615P 24.576 MHZ	
	QUARTZ CRYSTAL OSCILLATOR				
H1	AF LSS269BO SUPERROT LED	0009.8356.00	SIEMENS	LS S269-BO(-Q1566)	
	LED				
H2	AF LSS269BO SUPERROT LED	0009.8356.00	SIEMENS	LS S269-BO(-Q1566)	
	LED				
L1	LD 1UH 10% 0,38A 1210	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
	SMD-INDUCTOR				
N1	BO TL072ACD 2XFET OPAMP	0803.1057.00	TEXAS	TL 072 ACDR	
	OPERATIONAL AMPLIFIER				
N2	BO TL072ACD 2XFET OPAMP	0803.1057.00	TEXAS	TL 072 ACDR	
	OPERATIONAL AMPLIFIER				
N3	BO NE5534D OPAMP	0815.7555.00	SIGNETICS	NE5534(D)	
	OPERATIONAL AMPLIFIER				
R1	RG 2,0 OHM+-1%TK100 1206	RG 0007.8336.00	PHILIPS	RC 02	
	CHIP-RESISTOR				
R2	RG 470R +-1% TK200 0603	0009.6976.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603				
R3	RG 750R +-1% TK200 0603	1097.6492.00	DRALORIC	CR 0603	
	SMD RESISTOR				
R4	RG 10K +-1% TK200 0603	RG 0009.5357.00	DRALORIC	CR 0603	
	SMD-RESISTOR EIA0603				

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wir uns alle Rechte vor.

Kennz. Comp. No	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R5	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R6	RG 20K +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.9100.00	DRALORIC	CR 0603	
R7	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R8	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R9	RG 20K +-1% TK200 0603 SMD-RESISTOR EIA0603	0010.9100.00	DRALORIC	CR 0603	
R10 ..12	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R14	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R15	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R16	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R17	RG 100K +-1% TK200 0603 SMD RESISTOR	RG 0009.5363.00	DRALORIC	CR 0603	
R18 ..23	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R24	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R25	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R26	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R27	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R28	RG 10R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5328.00	DRALORIC	CR 0603	
R29	RG 150R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6947.00	DRALORIC	CR 0603	
R30	RG 150R +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.6947.00	DRALORIC	CR 0603	
R31	RG 22K +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7050.00	DRALORIC	CR 0603	
R32	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R33	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R34	RG 39K2 +-1% TK200 0603 SMD-REGISTER	0010.9823.00	DRALORIC	CR 0603	
R35	RG 604 OHM+-1%TK100 1206 RESISTOR	0010.1868.00	ROEDERSTEI	D25	
R36	RG 39K2 +-1% TK200 0603 SMD-REGISTER	0010.9823.00	DRALORIC	CR 0603	
R37 ..40	RG 2KO +-1% TK200 0603 SMD RESISTOR	1097.6328.00	DRALORIC	CR 0603	
R41	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R42	RG 4K7 +-1% TK200 0603 SMD-RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R43	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R44	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R45	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R46	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R47 ..50	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R51	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R52	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R53	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R54	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R56	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R57	RG O-OHM WIDERSTAND 0603 O-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R58	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	

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R59	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R60	RG 100R +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5334.00	DRALORIC	CR 0603	
R61	RG 10K +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5357.00	DRALORIC	CR 0603	
R62	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R63	RG 1KO +-1% TK200 0603 SMD-RESISTOR EIA0603	RG 0009.5340.00	DRALORIC	CR 0603	
R64	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R65	RG 0-OHM WIDERSTAND 0603 0-OHM RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
V1	AE HSMS2812 2SER SCHOTTKY SCHOTTKY DIODE	0520.7528.00	HEWLETT_PA	HSMS2812 L31	
V2	AE HSMS2812 2SER SCHOTTKY SCHOTTKY DIODE	0520.7528.00	HEWLETT_PA	HSMS2812 L31	
V3	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V4	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V5 ..8	AE BZX284-B3V9 0,4W ZDI ZENER DIODE	0048.3880.00	PHILIPS_SE	BZX284-B3V9	
V9	AE BZX284-B8V2 0,4W ZDI ZENER DIODE	0048.4306.00	PHILIPS_SE	BZX284-B8V2	
V10	AE BZX284-B8V2 0,4W ZDI ZENER DIODE	0048.4306.00	PHILIPS_SE	BZX284-B8V2	
V11	AK BCP68-16 N 20V TRANS MEDIUM POWER TRANSISTOR	0008.2019.00	PHILIPS	BCP68-25	
X420 ..423	FP BUCHSENLEISTE 22P.SMD CONNECTOR	FP 1097.6157.00	3M	150222-2020TB	

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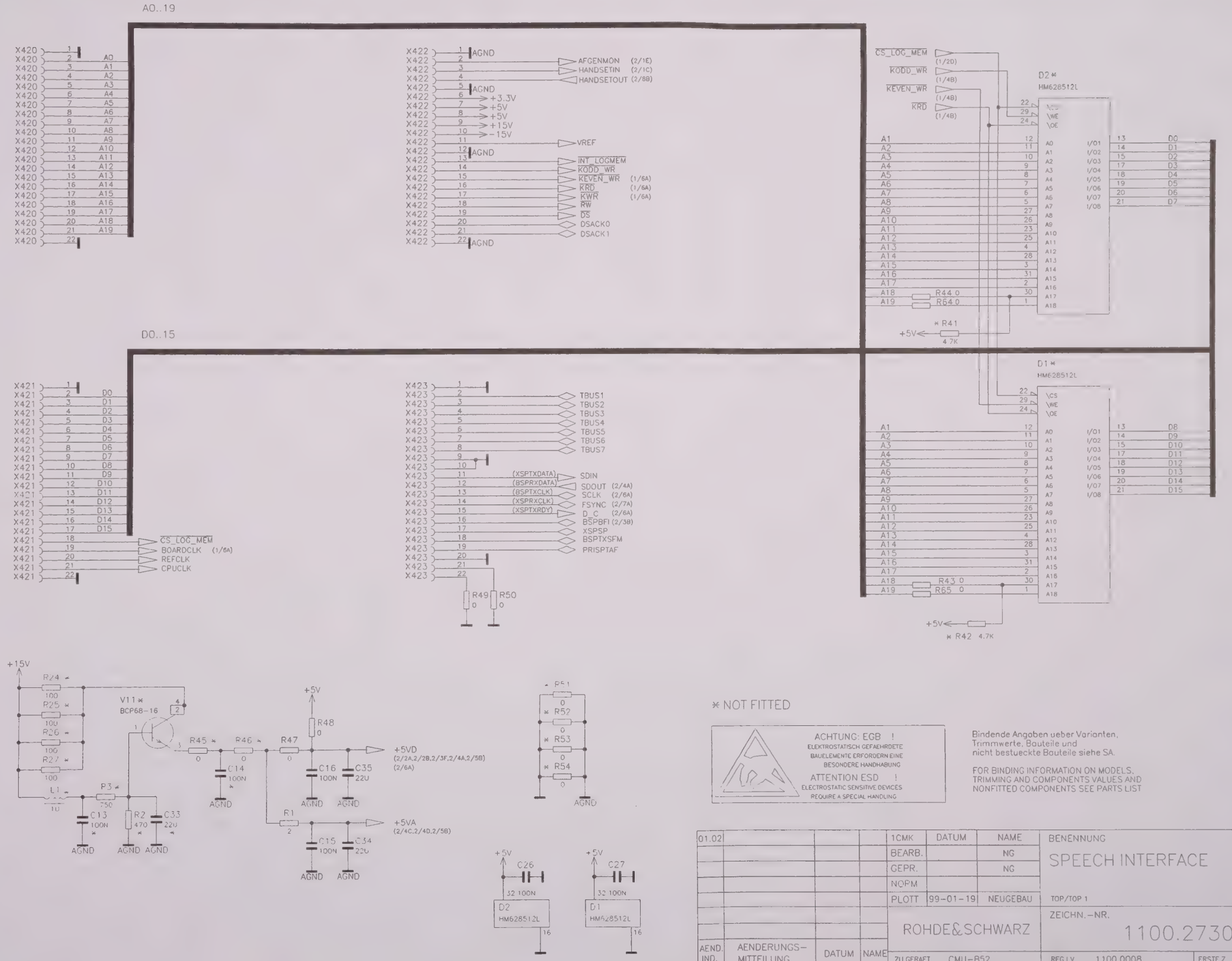
FÜR DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR



* NOT FITTED

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ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

Bindende Angaben ueber Varianten, Trimmwerte, Bauteile und nicht bestueckte Bauteile siehe SA.

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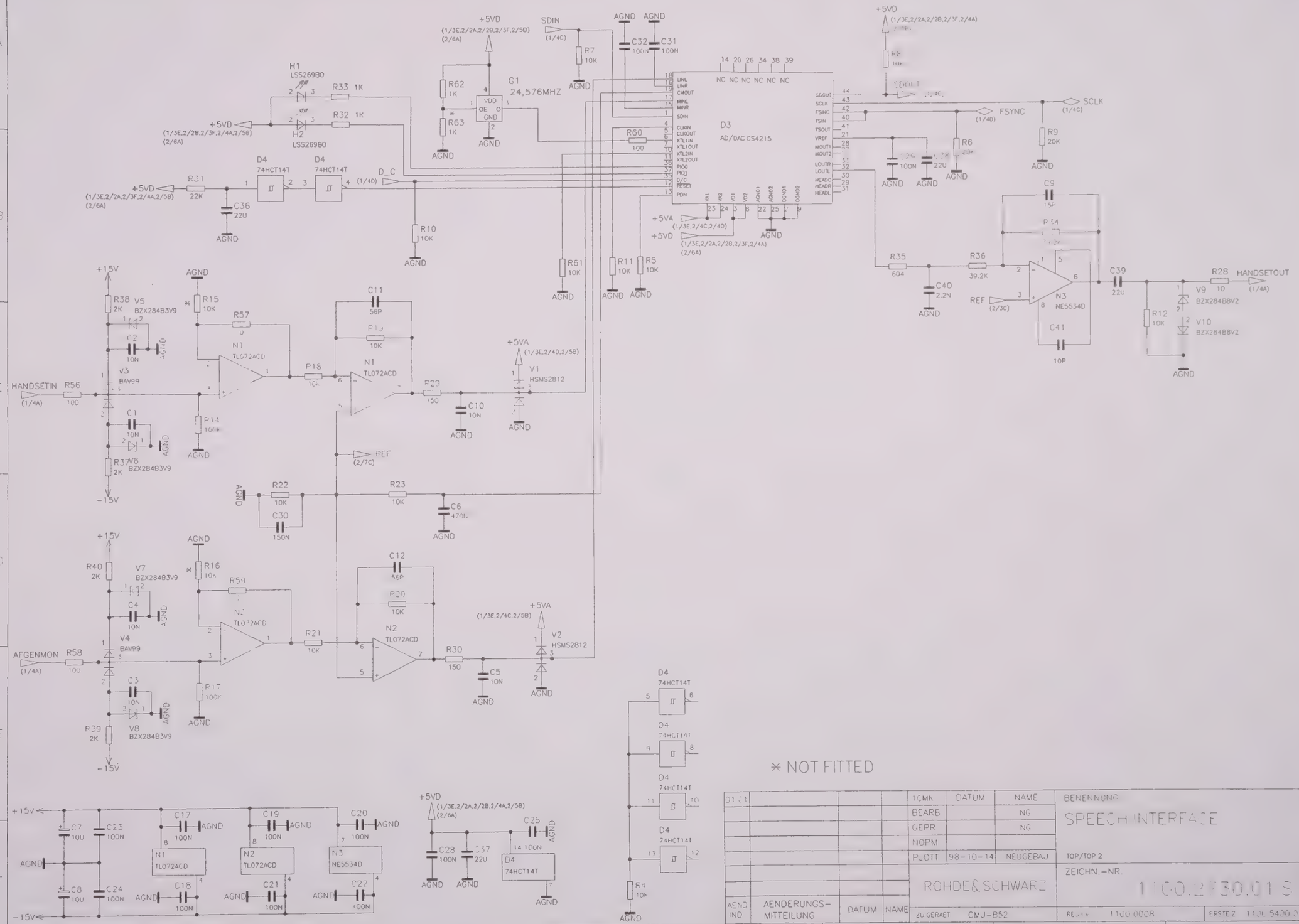
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
01.02			

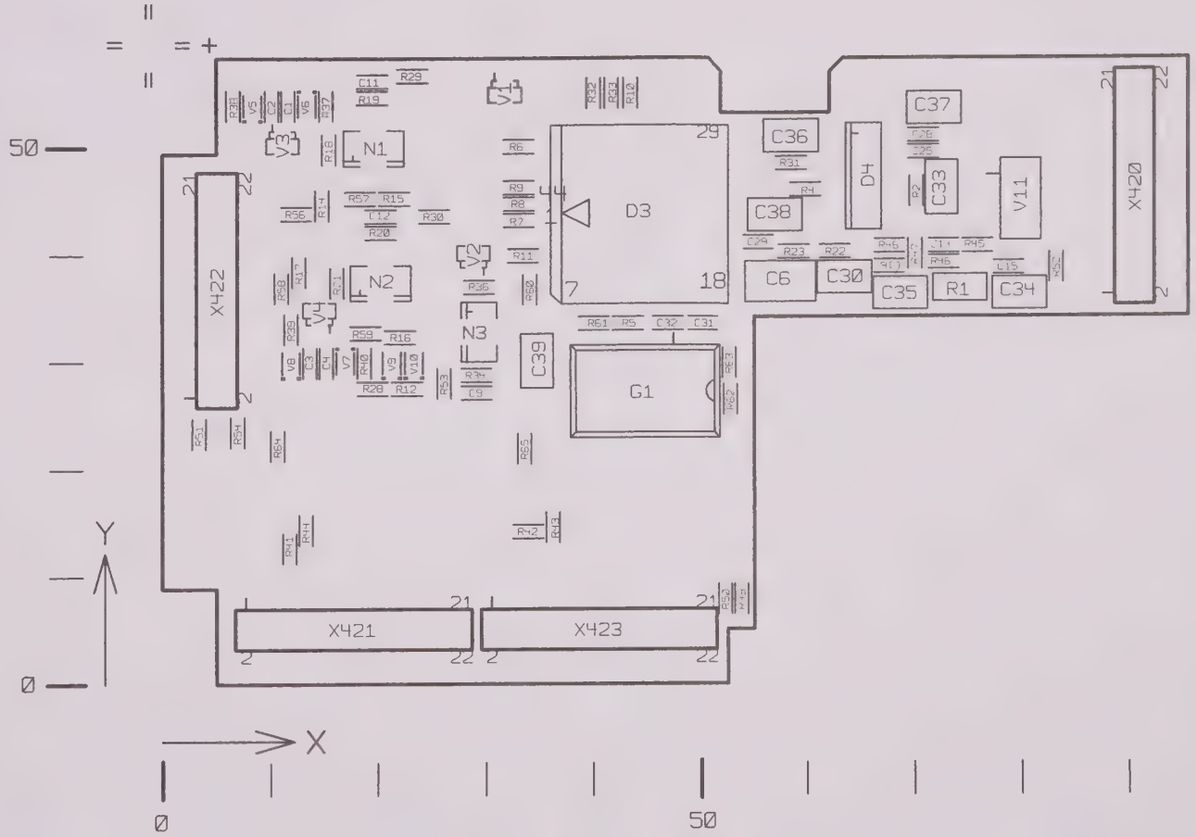
	1CMK	DATUM	NAME
BEARB.			NG
GEPR.			NG
NORM			
PLOTT	99-01-19	NEUGEBAU	

BENENNUNG
SPEECH INTERFACE
TOP/TOP 1

ROHDE&SCHWARZ
ZEICHN.-NR. 1100.2730.01 S
BLATT-NR. 1 +
ZU GERAET CMU-B52
REG.I.V. 1100.0008
ERSTE Z. 1100.5400.01



BEHALTEN WIR UNS ALLE RECHTE VOR



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ROHDE&SCHWARZ
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BENENNUNG
SPEECH INTERFACE

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1100.2730.01 D

BLATT NR. 1+
V. BL.

REG.I.V. 1100.0008
ERSTE Z. 1100.5400

FUER DIESE UNTERLAGE BEHALTEN WIR UNS ALLE RECHTE VOR

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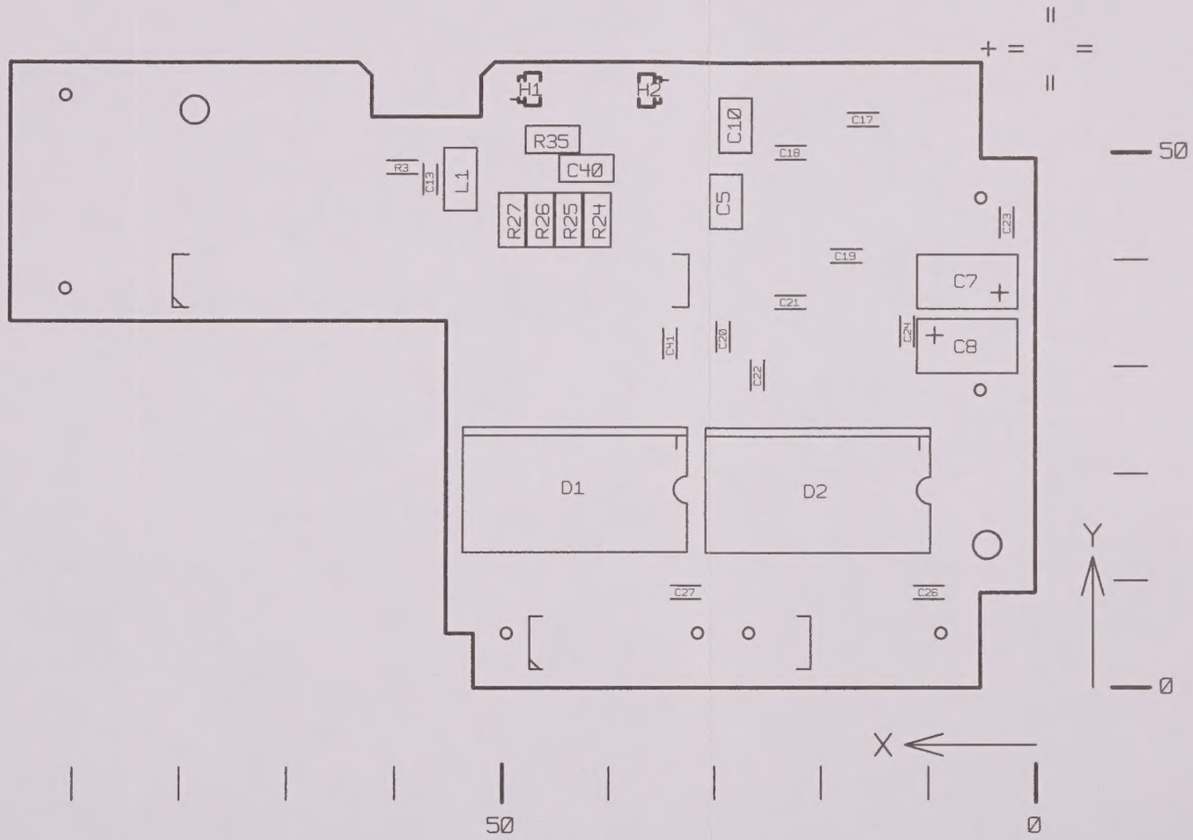

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BLATT-NR. 2-
V. BL.

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